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INVESTMENTS

SECOND EDITION

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THE NORTHERN TRUST COMPANY, CHICAGO

JOHN WILEY & SONS, INC., NEW YORK
CHAPMAN & HALL, LTD., LONDON

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SECOND EDITION
Third Printing, October, 1950

PRINTED IN THE UNITED STATES OF AMERICA

PREFACE

This book is intended for college classes, the personnel of financial institutions, and the general reader, who, even though he may rely on others to manage his investments, should have a clear understanding of the policies and processes involved in the selection and supervision of investment media.

Though the emphasis of the work is on the critical rather than the descriptive, historical and descriptive material is presented as a necessary background to the theoretical and analytical phases of the discussion.

We have purposely avoided lengthy excursions into the history and current problems of the railroads, public utilities, agencies of government, and other users of investment funds. The field of investment has become so extensive that no one can hope to become an expert in all its branches. The function of a general textbook in the subject, according to our way of thinking, should be to present principles applicable to all forms of investment and to introduce the reader to the major problems presented by each of the more important special aspects of the subject.

In the present revision, the historical aspects of investment in general and the discussion of investment media and mechanisms have been abridged, and new chapters have been added on taxation and preferred stock analysis. Current developments have been introduced, and statistical material has been brought up to date. Supplementary readings and projects have been added at the end of chapters.

In the preparation of the revised manuscript, the following have been especially helpful: Charles P. Burgess, Robert L. Cody, Jr., Thomas F. Duffy, Wesley W. Gratz, Frank W. Hausmann, Jr., Howard A. Judy, Carl T. Lambrecht, Pat G. Morris, Clarence W. Morton, Herbert A. Smith, and John C. Smith.

George W. Dowrie
Douglas R. Fuller

November, 1949

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PART I

The Nature of Investment

CHAPTER I Definition of the Problem

"Investment" Used Loosely in Common Practice. To a great degree confusion surrounds the term "investment" simply because of the multiplicity of uses to which it is put. Recognition of the looseness with which the word is commonly used in practical affairs, however precisely it may be defined in textbooks, is essential at the start of our discussion. The meaning of investment to the economist is quite different from its meaning to the security salesman or to the man in the street. The economist, thinking in terms of economic theory, will probably look upon investment as a productive process by means of which additions are made to capital equipment. From the practical point of view of the security salesman, on the other hand, investment may well be considered a merchandising process, in which he earns a living by placing his customers in touch with the best bargains. To the hypothetical man in the street, investment probably means an outlay of money in return for the expectation of gain in the shape of income or appreciation in value.

Under the heading of investment, we find included alike the action of the institution that "invests" its endowment in bonds or in mortgages and the action of the man who "invests" his savings in a parcel of real estate or in a grocery store. The term is often used to include such extremes as the taking of large chances with one's capital in common stocks or in the promotion of a new invention and the taking of refuge with one's capital in highest grade, tax-exempt bonds. It is stretched to cover both the action of the bank that "invests" in corporate bonds with credit it has created and the action of the corporation that "invests" in a new plant with funds it has borrowed from a bank. In fact, a young man is said to "invest" in his future by marrying his employer's daughter.

Some further confusion has been added by the violent economic changes of recent years, which have modified numerous convictions held by former writers on the subject. We may be most nearly successful in avoiding confusion and obscurity of meaning if we first indicate the way in which typical problems in investment arise and then try by definition to limit our consideration to a manageable size and a practical purpose.

The Investment Problem of the Individual. Nearly every man strives during his active lifetime to earn something over and above living expenses. Through saving and careful management of this surplus, he hopes to build up additional sources of income that will permit a higher standard of living or will insure financial independence later in life. The management of surplus in such a way as to make it work for its owner and provide an income is our conception of the typical investment problem of the individual.

Unfortunately, with the exception of the businessman who employs his surplus earnings to expand his own business, the knowledge required for successful management of capital is commonly quite foreign to the average individual's everyday activities. Virtually always, it covers a far broader field. Modern industry and finance are tremendously complex and subject to rapid and sweeping change. It is imperative under these conditions that the investor have at least a realistic idea of the nature of his problem and also a working set of investment principles capable of guiding him and protecting him to some extent from the disastrous losses that have all too frequently been experienced.

Other Investment Problems. The problem of the individual who wishes to invest his savings as they accumulate will be considered at some length, but it is probably of less importance than another general type of problem. This problem is the management of funds of a "fixed" nature, that is, those not subject to periodic additions from other earnings, though perhaps including the reinvestment of income. The individual, for example, may have inherited a fund of capital. A vast amount of the accumulated capital of our nation is of this general type, taking the form of estates, trust funds, endowments, charitable foundations, and the like. A similar large fund of capital is held by savings banks, insurance companies, investment companies, and other institutions that undertake the management of capital for individuals. Each of these agencies has its distinctive characteristics and limitations, some of which we shall note later, but all are faced primarily with the problem of making capital work for them to return as large an income as is consonant with safety.

The fact that our main concern in this book is the problems of these "investors"—individual and institutional suppliers of capital—should not be allowed to obscure the importance of the demand side of the equation and the problems facing the users of capital. These problems will be touched on only indirectly here, except for those of the investor in equities, who sometimes occupies a dual position as both supplier and employer of capital.

Definition of Investment. Investment may be defined broadly as the employment of capital with the aim of producing a gain in the shape of income or appreciation in value or both. Usually, however, this broad conception is narrowed considerably according to the purpose of the capital outlay involved. The everyday expenditures of a manufacturing enterprise in processing and selling its inventory of goods, for example, might technically be called short-term investments but instead are regarded simply as manufacturing and distributing operations. On the other hand, those long-range expenditures that aim at increasing plant capacity or efficiency or at building up goodwill, thereby producing an increased return over a period, are regarded as investments. Distinction is made on the basis of whether the purpose is to secure a single profit or a continuing income return. Some distinction is also made according to length of time involved, a transaction aimed at a single profit often being considered an investment if it extends over a long period of time.

Function of Investment. These distinctions arise from the nature of the basic economic function performed by investment. This function is to build up the nation's "productive plant," both in the industrial sense and in other directions. Under the modern industrial system, of course, large amounts of wealth must be withheld from current consumption and accumulated as mines, farms, factories, power and light plants, waterworks, office buildings, transportation and distribution facilities—all in advance of actual production. The amount of productive capital thus accumulated is the major determinant of the standard of living which is possible for the people of a nation. Such productive facilities are known as "capital goods" to denote the fact that they enter only indirectly into ultimate consumption, in contrast to "consumption goods." Capital goods are gradually consumed in the production of other goods, but if they are effectively employed they should increase productivity sufficiently to provide from current profits for their full maintenance or replacement and, in addition, for the payment of a return to the suppliers of the capital. Important accumulations of capital in productive form in other than the industrial sense are found, especially in residential buildings and in a wide variety of governmental undertakings. Such capital may be consumed directly, but only gradually and over a long period.

From the viewpoint of the suppliers of capital, or investors, investment may be said to serve the economic function of providing an outlet through which stored-up wealth may be put to productive use and made to return an income. Through the modern mechanism of security markets, considerable mobility of capital may also be obtained. The payment of a return, however, is the essential factor that induces potential investors to withhold from current consumption and make available for investment an adequate share of their purchasing power. It is not the only factor, as we shall see later, but it is the dominant one.

Investment, of course, is broader than capitalism. It has appeared in some of its forms in remote history, and it takes place in the application of any system of production advanced beyond the handicraft stage, regardless of the political form under which it is accomplished. In a communistic nation, for example, investment would be made in capital equipment, but by the state instead of by individuals. Investment in the financial sense in which we shall employ it here, however, is a part of the system of private capitalism, and more particularly of that "finance capitalism" which has accompanied the growth of productive units too large to be financed by any single individual. This is the stage upon which our practical investment problems are set—the United States of the present day and age. Although the great extension of governmental enterprises in recent years in this country has shifted somewhat the balance between public and private investment, the latter is still the central problem.

Investment in the Financial Sense. As already indicated, our main interest lies in the problems and decisions of the *investor,* not of the businessman or entrepreneur. This means that subsequent use of the term investment will be in the prevalent financial sense of the placing of money in the hands of others for their use, in return for a paper instrument entitling the holder to fixed-income payments or participation in expected profits. The investor rarely has any share in the actual management of his funds after he invests them. The paper instruments he receives are known as "securities"[1] (a label which often misleads the gullible) and are to be had in a great profusion of types varying with the nature of the promise made.

Some idea of the size of the problem confronting the investor, even after these limitations, is afforded by the listing, at the end of 1947, of 2,279 different issues of securities on the New York Stock Exchange alone. These securities included 1,379 issues of various classes of stocks, totaling 1.9 billion shares. Bond issues listed numbered 900, but this included United States Treasury issues, in which the bulk of dealings did not take place on the exchange. On the same date, the New York Curb Exchange reported 908 individual issues of securities. The other registered security exchanges of the country add only a relatively small amount to the grand total of securities with listed markets.

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[1] Sometimes certain such instruments, mainly mortgages on homes and small properties, are classed separately from "securities," that term being reserved for stocks and bonds, but the distinction appears unwarranted, since it is based primarily on the relative difficulty of transfer or degree of marketability involved.

We find, however, a tremendous additional volume of securities that is dealt in on an unlisted "over-the-counter" basis. This class includes, especially, state and municipal bonds, short-term Treasury debt, bank and insurance stocks, and real estate obligations. At the end of 1947 the net total of state, county, and municipal debt outstanding was estimated to be in excess of 14 billion dollars. Treasury bills, certificates, and notes were in excess of 47 billions. Although no accurate total of real estate mortgages is available, one estimate placed farm mortgage debt at approximately 5 billions and urban real estate mortgages at 40 billions in 1947.[2] In addition, there are large numbers of stocks of corporations of all types which are not dealt in on the established exchanges because of the smallness of the issue, its unseasoned character, a lack of general distribution of ownership, an unwillingness on the part of the management to provide adequate information, or other factors.

A little reflection will make evident the impossibility of even the expert investment manager acquainting himself with more than a small fraction of these many thousands of securities. Still more limited will be the number to which he will be able to give enough study to permit an adequate judgment of the risks involved. Under the circumstances, the plight of the average investor, with his limited time for study, his limited information, and his limited experience, is serious. The development of a better understanding by the average investor of what is involved in the successful management of capital is one underlying purpose of our discussion. Such an understanding is important whether he manages his funds himself or delegates the task to others.

Science versus Art. The debate on whether there is a "science" of investment is endless. During prolonged periods of prosperity, a so-called science of investment often is built up into an imposing and apparently airtight structure which collapses when depression sets in. In its collapse, it tears down many trusted standards and brings reference to investment as an art, with the inference that it is largely a black one. In our opinion, investment is both science and art, but primarily science: within certain limits, it is capable of being systematized and made relatively independent of individual skill or inspiration. It can be argued that successful short-swing or even cyclical operation in securities is to a large degree an art, but perhaps it would be better described as a psychological science based on extended observation of human behavior. Investment policy, however, though it must take account of violent short-term and intermediate changes in values, is only secondarily interested in them. It cannot safely rely upon success in anticipating such changes. The test of investment policy lies in long-run preservation of capital plus a reasonable income yield.

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[2] Elwyn T. Bonnell, "Public and Private Debt in 1947," *Survey of Current Business*, October, 1948, p. 21.

Preservation of Purchasing Power. Violent changes in commodity prices and in currencies during recent decades have led to an increasing insistence that preservation of capital must be interpreted as preservation of purchasing power. If the cost of living doubles, the value of a fixed principal sum or a fixed income to an investor is, obviously, cut in half, as many investors have learned through painful experience. Such experience during and after World War I was a major factor in building up the common stock investment theories that flourished after the publication of Edgar L. Smith's *Common Stocks as Long Term Investments,* in 1924,[3] and Kenneth Van Strum's *Investing in Purchasing Power,* in 1925.[4] Subsequent events altered these theories in the 1930's in the direction of the advocacy of a program of extreme flexibility, aimed at protecting the investor alternately against both inflationary and deflationary trends. Uncertainty over inflationary monetary trends, especially since World War II, has been a constant prod to remind the investor of the importance of maintaining the purchasing power of his capital.

There is no gainsaying the fact that purchasing power, or command over goods and services rather than dollars, is what most investors are really trying to preserve and build up. Experience has shown, however, certain serious obstacles lying in the way of successful "investing in purchasing power." More extended consideration will be given these problems later. For the moment, we shall only point out that there is an important conflict between the conceptions of *preservation of purchasing power* and of *investment.* The former suggests sterility, the preservation of existing capital in an idle state. Investment, on the other hand, is a positive force interested not only in preservation of capital but also in its expansion through productive employment.

Speculation and Investment. Many treatises on investment take care to draw a clear line of distinction between speculation and investment; others, of the cynical school that has flourished in recent years, refuse to recognize any real distinction, quoting the old saying that an investment is simply a successful speculation and a speculation an investment that has been found by experience to be unsuccessful. Of the two methods of approach, the latter is perhaps the safer, since it guards against any tendency to minimize the risks inherent in investment. At the same time, it is fair to draw a distinction as to purpose, since speculation is commonly aimed at a relatively short-term profit obtained from fluctuating market values, whereas investment is interested in income or in long-range profit due to growth or improvement in an individual situation. Some writers separate the two arbitrarily on the basis of whether the purpose is profit or income. Reflection will indicate, however, both the extreme difficulty of classification of many operations and the fruitlessness of it.

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[3] Macmillan, New York.

[4] Barron's, New York.

Speculation, fundamentally, is nothing more than foresight, or anticipation of the future, and in this respect it differs only in degree from investment, which assuredly involves anticipation of future conditions. In popular usage, the extent to which a security operation is held to be a speculation and not an investment depends primarily on the degree of risk which is believed to have been assumed and only secondarily on the income or profit in prospect. There is also a measure of moral opprobrium popularly linked with speculation that is not associated with investment. At the root of this moral disfavor probably lies the belief that speculation is a parasitical activity, contributing nothing to the economic process but affording a living at the expense of those who have created the tangible economic values reflected in the market place. Speculators are frequently looked upon as gamblers who, probably using borrowed money, manipulate market prices for their own profit, often contrary to the public welfare. While, admittedly, history affords some justification for this viewpoint, it is nevertheless necessary to point out that speculation on short-term movements in security prices performs an essential "market-making" function. It broadens security trading and assures that transactions may be consummated on an orderly market despite the fact that from time to time genuine long-range investment interest may be almost altogether lacking.

A principal evil of speculation lies in its infectious nature. Periodically, ever since security markets have existed, the large profits possible through correct anticipation of fluctuations in value have contributed to waves of wide public speculative activity that have accelerated and amplified price changes and eventually brought disaster. Early examples of such mass speculation were the famous South Sea and Mississippi "bubbles" which collapsed in 1719 and 1720. Because of the parallels they afford with more recent speculative excesses, study of these phenomena in some detail will repay the student who hopes to gain an understanding of security price movements.[5] They first demonstrated the peculiar adaptability of securities to mass speculation. This lesson investors apparently must learn over and over again.

Little profit is to be gained at this stage by attempting to draw a more careful line of distinction between investment and speculation. The essential points are that there are available to investor and speculator alike a wide range of securities involving many different degrees of risk and potential income or profit and that there are many short-term and long-term purposes an individual may have in mind when he buys or sells them. The investor cannot afford to be lulled into a false sense of security by the thought that he is "investing" and not "speculating." Neither can he afford to shun an otherwise reasonable approach to his problems because of the thought that it involves "speculation."

Inevitability of Risk. We are led by this discussion to a statement of one basic fact, an understanding of which must be at the foundation of every sound investment program. This fact is that *risk is inevitable.* The riskless investment does not exist. Not only is risk inevitable, but also it appears in the widest and most unpredictable diversity of forms: scientific advances, wars, catastrophes of nature, fraud, monetary debasement, and an endless variety of political, legal, and economic changes. Where it will strike the investor, he cannot know. Prepare for it, he must.

Any doubt as to the inevitability of risk in even the most gilt-edged of investments may be resolved by a simple mathematical computation of the tremendous rate of growth theoretically possible under compound interest. Were any millionaire able to enjoy compound interest unhindered by limitations of investment opportunity or by loss or confiscatory taxes, his descendants would within a relatively few generations own the entire world. Vanderlip[6] cites the case of the wealthy Medici family of Florence at the time of the Renaissance. Had these shrewd bankers been able 600 years ago to invest the equivalent of $100,000 safely at 5 per cent compound interest, their capital by now would amount to the impossible sum of $517,100,000,000,000,000.

Investors Too Readily Accept Existing Conditions as Permanent. Even many of those sophisticated investors who recognize clearly that risk is inevitable tend to think of both risks and opportunities solely in terms of the experience of their own lifetimes. They are prone to accept the currently existing background of investment as permanent. Yet the tremendous political and economic changes through which the world has been passing in recent years are leaving their mark on investment as on every other institution, and the investor must be alert to their implications.

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[5] See R. H. Mottram, *A History of Financial Speculation,* Little, Brown, Boston, 1929.

[6] Frank A. Vanderlip, "What About Investments?" *The Saturday Evening Post,* January 7, 1933.

Actually, when we look to experience for perspective, we find that the history of investment as it pertains to our present study is relatively brief. Investment, like the economic system of which it is a part, has been living and growing, not static. Like our economic system, also, it has developed with especial rapidity in recent times.

Almost the entire history of modern securities is compressed within the brief span since the industrial revolution that began with the application of power machinery in England in the eighteenth century. By far the greater part of the development has taken place since the Napoleonic Wars. As G. W. Edwards points out in his comprehensive study, *The Evolution of Finance Capitalism:*[7]

> The evolution of early economic systems, as the growth and the disintegration of the Roman Empire, the coming and the passing of European feudalism and the rise of individual capitalism slipped over the centuries with the imperceptibility of a slow-moving glacier. The evolution of security capitalism however has been one of the swiftest-moving dramas in all the history of human civilization, and its course has sped onward with the rush of a fast-flowing mountain stream.

Accepting this condition of rapid evolution as a basic fact, the investor may attack his problem with a realism not possible under a conception of investment as a mature institution operating under more or less fixed and ascertainable rules. Something of the extent of the changes that have occurred in recent decades is suggested in the brief summary which follows.

The Status of Investment at the Beginning of World War I. In the two decades before World War I, investors all over the world were able to follow established investment principles and practices with a degree of confidence not generally possible before or since. The most cautious and conservative investors were able to agree on the indubitable safety of Consols, *rentes,* and similar obligations, and it was felt that classification of other securities could be made with fairly accurate estimation of the risks involved. Although some uneasiness was voiced over the increasing economic rivalry between leading powers and the growing burden of armament expense, it was difficult to alarm those who could look back upon the amazing progress of the century since Napoleon. Capitalism, a policy of *laissez faire,* and economic progress were accepted almost universally as going hand in hand. The vast expansion in production, trade, and profits had contributed both to individual wealth and to the rise in the standard of living. The major governments and the major currencies were of unquestioned stability, and most of them had been so as far back as the memories of investors could reach. The mechanics of corporate organization and of banking and security dealings had been perfected, and the supply of capital had grown so that interest rates during the period were the lowest that had ever been seen. Investors were not blind to the existence of questionable securities, of periodic booms and depressions, and of sharp speculative price swings, but it was believed a relatively simple matter to anchor one's investment policy to a foundation of unquestioned soundness and to measure intelligently the risks involved in venturing beyond that foundation for greater yield or profit.

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[7] Longmans, Green, New York, 1938, p. 9.

War and Post-war Problems. This condition of satisfaction and of confidence in the future was shattered by World War I, which demonstrated how ill-founded was complacent belief in the stability of governments and even of capitalism. Moreover, the staggering burden of wartime expenditure wrecked many currencies and placed others in a questionable position. Everywhere the burden of taxation increased, and governments began to take more of a hand in internal economic affairs. A tremendous rise in commodity prices during the war and its subsequent liquidation contributed to the disruption of business and the security markets. Serious currency depreciation in France, Germany, Italy, and other countries ruined investors in fixed obligations and intensified the difficulties in post-war economic adjustment. In major foreign nations the years that followed saw no return to "normalcy"; instead a long succession of political and economic changes as a whole profoundly weakened capitalism and the institution of private investment.

The "New Era" Bubble. Among the nations which appeared to have gained more than they had lost by World War I was the United States. Formerly a debtor country, the United States as a consequence of the war had become the creditor of the world. Favored also by a large export balance, and internally by a great building boom, the rapid development of the electric power and light industry, and the growth of the tremendous automobile and affiliated industries, the United States found itself in the 1920's both the most important country in the world and by far the most prosperous. Since most Americans had long before assumed this to be their destiny, they did not question the means by which it had been attained but readily adopted the attitude expressed in the famous phrase, "Don't sell America short." Under these circumstances it is not surprising that the rising security prices which accompanied prosperous business finally kindled a great national wave of speculation. The breadth of public participation in this speculation was beyond all precedent, being influenced by the widespread nature of the prosperity and the increased degree to which remote districts of the country had become linked to the financial centers through improved communication and transportation. Equally important were other factors, including the familiarization of individuals with small resources with investment in securities as a consequence of government loan campaigns during the war, as well as the growth of large and often "high-pressure" organizations designed for selling securities at retail. A most important influence also, as always, was the spectacle of extremely large gains made by those individuals daring or wise enough to join the boom in its early stages. Many individuals, too, who had been reluctant to assume equity risks in securities before the war were ready to consider them after the unsatisfactory performance of fixed obligations during the war period when commodity prices were soaring.

The consequence of these numerous influences was a boom in securities on a scale never before seen. The market valuation of stock issues listed on the New York Stock Exchange increased from $27,072,000,000 at the end of 1924 to $89,668,000,000 on September 1, 1929. Unlisted stocks and stocks listed on minor exchanges likewise increased materially in number and in value. Bond issues, other than the national debt, also grew substantially, especially real estate loans, public utility loans, foreign loans, and state and local governmental obligations. Security owners increased greatly in number. Stockholders of the American Telephone and Telegraph Company, for example, grew in number from 186,448 at the close of 1921 to 469,801 on December 31, 1929, and stockholders of the General Motors Corporation increased from 66,837 in the last quarter of 1921 to 198,600 in 1929. There was a steady trend toward diffusion of company ownership among small individual security holders, with the consequent separation of ownership from control of the management.[8] This trend was assisted by a stream of consolidations which reduced former large interests to minor importance, and by the sale to the public of control of formerly closely held corporations in order to obtain the mobility of capital provided by an active public market. Along with the expansion of direct security holdings, indirect investment in the form of savings bank deposits and life insurance premium payments grew at a rapid rate, causing a steady demand for securities of a type permissible for institutional investment.

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[8] See A. A. Berle and G. C. Means, *The Modern Corporation and Private Property,* Macmillan, New York, 1933, Chapters IV and V. This trend, of course, began before 1921 and has continued since 1929. At the end of 1947, the stockholders of American Telephone numbered 723,374, and of General Motors, 436,510.

The boom lasted literally for years after the more conservative financiers began to feel it could go no further, and it ended by converting all but a very few to the belief that America had at last entered upon a "New Era," when monetary control would eliminate serious depressions and the basic reality was a steady trend of growth in production and profits. Common stocks came to be valued on the basis of a projection of the "growth trend" in a company's earnings, for perhaps years ahead, and individuals came more and more to rely on their share in the anticipated annual growth in common stock values as part of their normal income. Many more borrowed money and gambled on the Stock Exchange simply because of the quick profits to be taken from sharply fluctuating prices. The monthly volume of transactions in stocks on the New York Stock Exchange increased from less than 20,000,000 shares in 1923 to more than 93,000,000 shares in 1929. Common stock prices as measured by the best-known index, the Dow-Jones average of 30 industrial stocks, advanced with only minor interruptions from 88 in May, 1924, to a peak of 381 in September, 1929.

The inevitable collapse, which was heightened by the uncovering of grave economic weaknesses that had gone unnoticed during the boom, brought this same stock-price index down to 41 in July, 1932, to the accompaniment of a sickening shrinkage in bond prices, real estate values, and commodity prices, and a wave of bank failures and defaulted loans and mortgages.

Loss of Confidence in the 1930's. The passing of the "New Era" dream and its replacement by the prolonged depression of the 1930's was a more painful event for greater numbers of the electorate than any previous economic collapse in this country, and it led directly to a major reorientation of the relations of government and business. The financial mechanism of the nation was subjected to a particularly drastic remodeling, which will require our attention in later chapters.

At the same time, fundamental changes took place in investors' habits of thought. Most important of such changes were the growth of an exaggerated emphasis on safety and liquidity of invested funds, concern over political trends, fear of monetary inflation, and a loss of faith in the capacity of industry in general to grow and prosper. Demand for both bank and security financing fell to a low ebb. The discouragement prevailing was reflected not only in a low volume of new financing but also in a shift in traditional relationships in the yields obtainable from short-term and long-term securities. Because of the extra measure of safety and liquidity they afforded, and in particular their appeal to banks as idle bank reserves grew, short-term obligations of high quality sold at unprecedentedly low yields in relation to comparable obligations with longer maturities.

Other major changes in the 1930's in the attitude of investors reflected the greatly expanded economic role of the federal government. Financing of rising government expenditures led to heavy increases in income tax rates, and income taxes changed from a relatively passive influence to a dominant consideration in the investment decisions of substantial investors. In addition, since federal deficits were covered by borrowing, the total of United States Government interest-bearing debt outstanding increased from 16 billion dollars at the end of 1929 to 41 billions at the end of 1939. This increase occurred at a time when private debt was on the whole being retired rapidly. As a result, government obligations became an increasingly substantial portion of the total of securities available to investors.

World War II. Some of the misgivings that troubled investors in the 1930's were dispelled by the tremendous expansion in production and trade, accompanied by a high level of profits, during and after World War II. Other uncertainties, however, were aggravated by the complexity of the political and economic currents arising from the war and its associated monetary inflation.

One clear-cut and highly significant effect of financing the war was to increase still further the importance to investors of obligations of the United States Government, which amounted in total to more than 254 billion dollars at the end of 1947. Not only were these securities of overwhelming importance because of their great volume, but through activities of the central monetary and banking authorities they also became the subject of experiments aimed at controlling interest rates.

Lesson Afforded by Historical Approach. A truly interesting subject for study would be the shifting policies of different classes of investors in different countries as investment in securities developed during the past century. There is considerable evidence that the typical investor all too often was guided chiefly by memory of the immediate past, placing his capital in the type of investment which would have accomplished his purpose had he held it during the preceding period but which frequently performed differently afterwards.

At least it is clear that investment as it exists in the United States today is merely one stage in a long process of development. Even should future development be unexpectedly slow and gradual, the investor will need to bear in mind that he is able to refer to only the most limited experience under conditions really comparable to the present. In consequence, he should not be too ready to assume, without careful examination of the underlying reasons, that policies recently successful will remain so in the future.

SUPPLEMENTARY READINGS

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PROJECTS

1. Examine a recent metropolitan newspaper or financial journal to determine the number of securities it quoted on some given day. About what proportion of the total bonds and stocks listed on the New York Stock Exchange was included on that day? For total listings consult a recent number of *The Exchange* (official monthly publication of the New York Stock Exchange) or some recently published statistical compilation to be found in periodicals like the *Commercial and Financial Chronicle.*
2. Examine old volumes of a financial journal with a view to submitting a contrast of the approach to investment problems in booms and crises. What types of securities received primary attention in each case? Did the financial writers of the time seem awake to the respective situations?

CHAPTER 2 Sources and Application of Investment Capital

Definition of Capital. It is now time to inquire briefly into the nature of the basic material with which investment deals, "capital." Capital has been perhaps most satisfactorily defined simply as wealth devoted to the production of more wealth. This might be amplified to the statement that capital is an accumulated stock of economic goods set aside for use in the production of more goods.

In practical usage, however, the term capital is commonly employed to indicate the *net* amount of wealth (economic goods) of all kinds owned at a given time, either directly or through claims upon others, and including money and nonproductive goods. This usage is probably a consequence of the fact that money and goods, even though not currently employed productively, are still capable of being converted through the processes of exchange into such employment. This is the viewpoint of accounting. Capital in this sense is said to be created simply by producing more than is consumed. The capital of a community is held to be synonymous with its accumulated savings.

Distinction between Real Capital and Securities. Under modern capitalism, the great bulk of capital employed in industry is owned indirectly, through the medium of securities. It is important for us to distinguish between the actual capital and the securities which represent it, that is, between the material objects and the certificates of ownership. Although the individual is said to invest his capital in securities, he actually is investing money or its equivalent in the goods which the securities represent. As a matter of fact, the investment in goods, through securities, may not be capital goods, but consumer goods serving merely as collateral, the income return being derived from other sources. Or no goods at all may be represented, as in governmental loans for war purposes or for running expenses.

Increasing Mobility of Capital. Securities and the mechanism of security markets provide mobility of capital that enables an *individual* to withdraw his capital from employment easily and quickly and to shift it readily from one form of investment to another. As the corporate form of organization has spread and security markets have broadened, this factor of mobility has received increasing emphasis, until it now is not an exaggeration to say that the bulk of the fixed industrial plant of the nation is regarded by a multitude of owners from their own individual viewpoints as a highly liquid asset. The significance of this attitude in view of the impossibility of realizing such liquidity in practice, except for a small fraction of the total capital, will be the subject of later discussion.

Capital Used in Financial Sense Includes Liquid Funds. The conversion of wealth in the form of money or its equivalent into productive facilities is the special field of investment. In the financial sense, as we have defined it, investment means the placing of money (purchasing power) in the hands of others for their use, in return for securities which promise fixed income payments or offer participation in expected profits. Sale of these securities provides a means by which the invested funds may be withdrawn from employment without altering the productive assets that have probably been created through their use. For our purposes in subsequent discussion, viewing investment in the financial sense, we shall consider *capital* collectively to include the available supply of money or other liquid purchasing power as well as the existing instruments of production. This definition will include capital created through the use of credit along with that arising through saving out of past production. With individuals, it is practical to consider capital owned indirectly through securities as the equivalent of capital owned directly.

We are now ready to consider in more detail the process of capital formation: the "supply of capital," the "demand for capital," and that broad and ill-defined arena, the "capital market," where the relative insistence of the supply and the demand determine, at least in theory, the rate which will be paid for the use of capital. The basic importance to investors of changes in the rate of return on capital and of the economic fluctuations associated with the process of capital formation justifies discussion of these factors in some detail.

The Supply of Capital. When a nation has reached an advanced stage of industrial development, with an abundance of funds available for investment and with demand for them diminishing in insistence, there is a tendency to forget the importance of an adequate supply of new capital. It may then be deemed wise to seek to curtail saving and to promote consumptive expenditures. The capital of a nation may be dissipated in so many ways, however, and new demand may appear so unexpectedly, that it is dangerous to assume that material additions to savings may be dispensed with. The comment of Walter Bagehot in England in 1873[1] is illuminating:

> We have entirely lost the idea that any undertaking likely to pay, and seen to be likely, can perish for want of money; yet no idea was more familiar to our ancestors, or is more common now in most countries. A citizen of London in Queen Elizabeth's time could not have imagined our state of mind. He would have thought it was no use inventing railways . . . , for you would not have been able to collect the capital with which to make them.

Savings the Source of Supply. The supply of capital is accumulated through saving, that is, through the consumption of less than is produced. Although it is true that capital may also be created through bank credit, such credit is only a device for anticipating future savings which will be necessary to retire it. In primitive societies, savings take the form of time and energy diverted from the satisfaction of consumptive needs to the construction of capital goods. Under modern economic organization, the savings of individuals, amounting simply to the diversion of a part of income away from consumptive expenditures, are principally in the form of money. Business savings may appear equally as well in increased inventory or in improved plants and equipment as in the form of money. Money savings, of course, are frequently held idle or "hoarded," either temporarily or indefinitely, instead of being invested, and a distinction must be made between mere savings and an effective supply of investment capital. When invested, too, savings may be put to work directly, or they may be placed indirectly and with some time lag through the agency of securities or of savings institutions.

Ability to Save. The amount of savings will be determined by two factors, desire to save and ability to save. Of these, ability is the easier to measure. What is the national income? How productive are labor and existing capital goods? How abundant are natural resources? What is the nation's requirement for consumptive expenditures in order to maintain an acceptable standard of living, and how does it compare with the national income? How is the national income distributed among individuals? How far, if at all, do the incomes of the different groups of individuals exceed the expenditures that are necessary for them to maintain acceptable standards of living?

Reasonably satisfactory estimates both of national income and of individual incomes are available for the United States. Though approaches may be made from several directions to the problem of measuring the nation's minimum requirement for consumptive expenditure, the most practical course is through examination of savings that have been made under different levels of income in the recent past. Table 1 presents estimates of the Department of Commerce covering gross national product, allowances for consumption of capital, undistributed corporate profits, and personal savings for the period 1929–1947. No correction has been made for changes in the price level, which were substantial during the period. Capital consumption allowances, which are largely depreciation charges, are included in order to show the relative magnitudes of replacement funds available to business for capital purposes and of funds available from new savings.

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[1] *Lombard Street,* Scribner, Armstrong, New York, 1873, p. 7.

TABLE 1

GROSS NATIONAL PRODUCT AND SAVINGS, 1929–1947 *

(in billions of dollars)

Year	Gross National Product	Capital Consumption Allowances †	Undistributed Corporate Profits	Personal Savings
1929	103.8	8.8	2.6	3.7
1930	90.9	8.7	−3.0	2.9
1931	75.9	8.3	−5.4	1.8
1932	58.3	7.7	−6.0	−1.4
1933	55.8	7.2	−2.4	−1.2
1934	64.9	7.2	−1.6	−0.2
1935	72.2	7.4	−0.6	1.8
1936	84.7	7.7	−0.3	5.8
1937	90.2	8.0	−0.0	3.9
1938	84.7	8.0	−0.9	1.0
1939	90.4	8.1	1.2	2.7
1940	100.5	8.4	2.4	3.7
1941	125.3	9.3	4.9	9.8
1942	159.6	9.9	5.1	25.4
1943	192.6	10.6	5.9	30.0
1944	210.6	11.8	5.2	35.6
1945	213.1	12.1	4.2	29.0
1946	203.7	11.0	6.9	14.8
1947	229.6	12.4	11.0	10.9

* Source *National Income Supplement to Survey of Current Business*, July, 1947, and *Federal Reserve Bulletin*, July, 1948.

† Charges for depreciation and for accidental damage to fixed capital; capital outlays charged to current expense.

Supplementing the over-all estimates presented in Table 1, Table 2 gives details of certain major types of saving in recent years, including net sales of United States Savings Bonds. Emphasis should not be placed on the total of savings in Table 2, however, for many forms of saving are not represented.

TABLE 2

Certain Major Items of Saving, 1921–1947 *

(in millions of dollars)

Calendar Year	Increase in Savings Deposits in Banks, including Postal Savings	Increase in Assets of Savings and Loan Associations	Increase in Reserves and Equities of Life Insurance Companies	Increase in U. S. Savings Bonds Outstanding
1921	802	224	361	. ....
1922	1,569	245	450	. .
1923	1,799	416	724	..
1924	1,853	527	699	..
1925	1,690	658	879	..
1926	1,406	567	1,012	.....
1927	2,044	649	1,110	.. ..
1928	1,309	735	1,164	. ..
1929	− 492	475	1,025	......
1930	487	59	858	.. ...
1931	−2,697	−380	583	...
1932	−1,522	−590	179	.....
1933	−2,742	−626	153	....
1934	1,441	−342	1,041	.
1935	1,085	−254	1,490	153
1936	1,120	−178	1,591	323
1937	857	85	1,377	495
1938	87	24	1,348	483
1939	754	57	1,166	775
1940	679	212	1,639	978
1941	− 9	348	1,929	3,005
1942	702	258	2,142	8,838
1943	4,317	584	2,631	12,313
1944	7,042	811	2,847	12,998
1945	8,662	1,359	3,297	7,822
1946	5,508	1,326	3,204	1,593
1947	2,340	710	4,187	2,277

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* Adapted from *Banking*, April, 1948, p 43. Sources Board of Governors of the Federal Reserve System; Federal Home Loan Bank Administration, *The Spectator*, Chilton Company, Inc., Philadelphia, U. S. Treasury Department.

Effect of Inequalities in Income Distribution in Determining Sources of Savings. With the individual, extreme inequalities in income distribution play an obvious but significant role in determining his ability to save. In sum total, naturally, these same forces have an important bearing upon national savings. Leven, Moulton, and Warburton [2] concluded from their studies that in 1929 more than 20 per cent of total personal income was obtained by only 1 per cent of the nation's families. The 8 per cent of families with highest incomes received 42 per cent of the total. The 59 per cent of families lowest on the scale received 23 per cent of the income.

Although total personal income has increased very substantially in recent years, and there has been a tendency toward greater equality in its distribution, it does not appear that the pattern of distribution has been strikingly different from that prevailing in 1929 and in earlier years. A survey of consumer finances for the year 1947 conducted for the Board of Governors of the Federal Reserve System indicated that the 10 per cent of family "spending units" receiving the highest incomes received 33 per cent of total money income. The 60 per cent of spending units lowest on the scale received 30 per cent of the total.[3]

Obviously, such an unequal distribution of income tends to concentrate large savings in the hands of a relatively small group at the top of the scale, while making it more difficult for the great mass of the people to save. Leven, Moulton, and Warburton [4] found that the proportion of income saved increased rapidly as the income level rose, and they estimated that the top one-tenth of 1 per cent on the income scale in 1929 accounted for more than one-third of all savings. Although inequalities in income distribution do not appear to have been seriously altered since 1929, the relative proportions of savings made by those in the different income classes have been drastically affected by the very substantial increases after that date in federal tax rates upon both large and middle-bracket incomes. Nevertheless, the survey of the Board of Governors referred to above concluded that for 1947 the top 10 per cent of spending units were responsible for 77 per cent of total net savings.[5]

Motives Stimulating the Desire to Save. The motives for saving are even more varied than individual abilities to save are disproportionate. Although a natural assumption might be that savings are made primarily to take advantage of the return offered by prospective users of capital, further consideration will make clear the importance of other factors.

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[2] *America's Capacity to Consume*, Brookings Institution, Washington, 1934, p. 54.

[3] *Federal Reserve Bulletin*, June, 1948, p. 653.

[4] *Op. cit.*, p. 93.

[5] *Federal Reserve Bulletin*, August, 1948, p. 923.

distinction exists between the decision of the saver, who foregoes current consumption, and that of the investor, who is looking for profitable employment for his capital. The interest and dividend returns offered are of more significance in influencing the disposition of savings among the different channels of investment than they are in determining the total quantity of savings that will be accumulated.

For many persons, especially in the lower income groups, the motive for saving is simply to prepare for an emergency, a "rainy day." The promised interest return will have little influence on the volume of these savings. Other people, better able to save, plan to provide financial resources for their old age or for their dependents, or hope to raise their standard of living at a later date. For them, fear of future insecurity, on the one hand, and ambition for social advancement and prestige in business, on the other hand, are potent motives. Their saving will often be pointed toward a specific goal such as the purchase of a home or the provision of capital to enable them to start a business enterprise. For wealthy individuals, saving is often unavoidable, simply because income is so greatly in excess of consumptive requirements.

Business Savings. Motives behind the savings of business organizations are similarly varied, affected by their relative degrees of poverty or wealth, but generally aimed either at greater financial strength and productive efficiency or at profitable expansion. It is true that there exists some natural bias toward saving in most large business corporations, since the decision is made by the managers, whose interests as stockholders are usually subordinate, leading them to prefer expansion or increased financial strength over more liberal dividend payments. Even when a corporation is dominated by a few large owners, the owners may choose to retain profits in the business rather than pay high surtaxes on their personal incomes, although special tax provisions tend to limit this practice. In fairness, however, it should be pointed out here that the typical corporation which has achieved financial strength and appears to be approaching the limit of profitable expansion in its field does show a tendency to save less and to pay out in dividends to stockholders a larger proportion of its income.

Conditions Conducive to Saving. Bearing in mind the possible motives of savers, we are able to list certain basic influences which may tend to stimulate or to curtail saving. A first essential condition for saving, along with the ability to save, is a reasonable degree of stability in political and economic institutions. The saver and, to an even greater degree, the investor are concerned with the maintenance of law and order and contractual rights. Under other conditions, where the ultimate enjoyment of postponed satisfactions may appear highly dubious, there is a greatly reduced incentive for the potential saver to forego current consumption and for the potential investor to assume additional risks. The necessitous saving of the poor and the unavoidable saving of the wealthy will continue, but the sum total will likely be much smaller, and the tendency will be toward hoarding or holding capital idle rather than entering into long-term contracts.

Other similar conditions are of importance in influencing savings, though their precise influence may be difficult to predict. For example, there is the matter of a reasonably stable price level, which beyond any doubt plays a part in the calculations of the saver. The question of taxation is another major factor. Does the government, for purposes of consumptive expenditure, take from incomes so much as seriously to curtail the ability to save? Does the certainty of heavy taxation reduce the incentive to take risks with capital in developing productive industry? Incentives to take risks with capital operate as incentives to save, and the nature and extent of the investment opportunities afforded to capital are important conditions influencing saving. Another factor of no small importance for the nation as a whole lies in the habits of thought of the people. Are they by nature and habit thrifty and conservative in taste, or are they improvident and given to extravagant display in spending?

Influence of the Rate of Return. The interest rate obtainable and the anticipated rate of return on invested capital are, of course, major influences in expanding or reducing the supply of savings. On the face of it, a high rate of interest should divert funds from consumptive expenditure toward productive employment and a low rate should discourage risk taking and encourage consumption. The actual net effect, however, is not easy to trace. It seems probable that variations in rates of return are much more important in determining the channels through which savings will be invested than in influencing the total supply. Experience in recent years with savings deposits in centers where variations in rates paid by banks have existed has in many instances revealed a remarkable lack of sensitivity on the part of savers to fairly substantial differences in rates of return.

Even if there were no interest return at all, much saving would go on. The inflexibility of savings of the poor and of the very wealthy has already been suggested. Let us consider, also, the case of a man of moderate income who hopes to provide for his old age. In a period when interest rates are high, this man will find that less capital is needed to provide the requisite income. Yet this is just the period when savings might be expected to increase because of the lure of attractive rates. Conversely, when rates are low, he must save a larger principal sum in order to assure the same income for his old age, although logic would have it that savings should diminish in a period of low interest rates. From this dilemma, we pass logically to another problem concerning interest that is often perplexing. Is a given low-interest-rate situation the product of excessive saving or of light demand? And, similarly, are high interest rates the consequence of a lack of capital or of vigorous demand?

Mobilizing the Supply of Capital. Almost as important as the volume of savings of a nation is the form the savings take. Hoarded in countless small sums in family "stockings," they are of little significance to the capital market. They do not contribute to the expansion of production but simply withdraw purchasing power from current consumption for use at a later date. Gathered through deposits in banks, premiums to insurance companies, and other agencies into a common pool with the savings of other individuals, however, they are enabled to perform productive service. Bagehot,[6] commenting in 1873 on the influence of the advanced banking system of England on the rapid growth of its industries relative to those of other European nations, said, "A million in the hands of a single banker is a great power; he can at once lend it where he will, and borrowers can come to him. . . . But the same sum scattered in tens and fifties through a whole nation is no power at all: no one knows where to find it or whom to ask for it."

The financial institutions of the nation—banks, insurance companies, savings and loan associations, investment companies, stock exchanges, investment banking houses, security dealers—perform a highly important service in mobilizing the nation's capital for productive use. They have played a large part in the tremendous accumulation of capital which has so strikingly advanced the standard of living in the United States in the past century, and their services in this respect should not be lost sight of when their mistakes are considered.

Some measure of the magnitude of the task that has been performed by savings institutions in mobilizing the nation's capital is obtained by reference to statistics of their total resources and of the number of individuals who have contributed their savings to the total. As of June 30, 1948, savings deposits in the nation's banks amounted to 53.6 billion dollars, owned by 60,000,000 depositors. On December 31, 1947, the admitted assets of United States life insurance companies were 51.7 billions. The number of "ordinary" insurance policies then in force was 58,500,000. At the end of 1947, savings and loan associations held assets of 11.6 billions for 10,000,000 members.

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[6] *Lombard Street,* Scribner, Armstrong, New York, 1873, pp. 5, 6.

Influence of Corporate Form of Organization. Another institution which has played a major part in capital accumulation in this country has been the corporation. The pooling of the resources of many individuals into large corporate organizations has led to increased savings through the increased productive efficiency large-scale operations have made possible. From another and more basic standpoint, also, the corporation has accelerated capital accumulation in that it has made immeasurably easier the financing of large enterprise, owing to the peculiar advantages of limited liability and the ease of transfer of corporate securities. The corporate form of organization has now spread until it is dominant throughout business enterprise, excepting the personal service industries and agriculture, where it is growing. Needless to say, our investment problems are intimately tied up with the corporation. Indeed, excepting governmental obligations and individual real estate mortgages, the securities with which investment in the financial sense deals are almost entirely corporate instruments.

The Role of Government. The various governmental units of the United States possess in taxation a power of forcing saving and thus obtaining the supply of capital required for public investment in some undertaking deemed socially productive. Throughout history, this method of securing capital has been employed by governments. Whether or not taxation may properly be considered involuntary saving depends on the purpose to which the proceeds are put, on whether an asset of genuine productive value is created or whether the funds are simply distributed again through unproductive expenditure.

The federal government has also, since 1910, been engaged directly in the gathering together of savings through its postal savings system, which will be discussed in the next chapter. The total of the funds placed in this agency was insignificant until 1931, when widespread bank failures shook the confidence of depositors in other institutions and set in motion a considerable shifting of deposits to the hands of the government. Since 1933, again, postal savings deposits have grown slowly.

The postal savings system is now of materially less importance than United States Savings Bonds, first introduced in 1935, with which the government endeavored originally to stimulate the savings of the low-income individual. The very large growth in the volume of savings bonds in connection with financing World War II is shown in Table 2.

The Demand for Capital. The demand for capital is less predictable than the supply, principally because it is to a much greater degree affected by volatile psychological factors. So long as the bulk of capital is employed in private business channels for profit, by corporations and individual entrepreneurs who must look ahead and appraise the risks of always uncertain future events, that long is the demand for it likely to fluctuate widely according to the alternately optimistic and pessimistic temper of the business world. Decision to employ new capital for business purposes is the expression of a positive judgment that its productivity, when employed, should bring a return adequate to compensate for the risks involved.

This is not to imply that there are no stable types of capital requirements. Capital equipment wears out and becomes obsolete at a relatively steady rate, and replacement needs are of a stable nature, although it is true that they may be translated only irregularly into active demand. An important stabilizing influence has been the relatively steady rate of growth in population, which has tended to bring about a corresponding expansion of productive facilities in many industries close to the consumer, such as the food and clothing industries, and gas, light, and telephone services. The need for funds for the construction of many types of public improvements is also related closely to population growth.

The greater part of total demand for capital, nevertheless, varies widely in amount from year to year. This phenomenon, along with the consequent sharply fluctuating volume of new capital creation, is in fact at the very heart of the problem of the business cycle. Economic theorists battle over the precise relationships of saving, investment, and capital formation in the cycle, and we shall not try to solve the problem, but it will be helpful to emphasize that these agencies play an active role in the cycle and are not merely swept along. Because our industries producing capital goods constitute a very important segment of the total economy, prosperity is not possible without a substantial measure of activity in the creation of capital goods. We face the dilemma, however, that, if savings follow their natural tendency and grow rapidly as income rises, there may not be an adequate demand to take care of the goods produced by the new capital equipment created from the savings. On the other hand, if consumption grows and savings lag, there may not be adequate funds for construction of productive equipment to meet the demand for consumption goods. The maladjustments arising in these relationships are believed by many to be a primary cause of the instability that is known as the business cycle.

The Sources of Demand. The principal sources of demand for capital are (1) private and (2) public. Within these general classes, wide differences exist and extensive subdivision is possible. The primary subdivisions are domestic demand and foreign demand. We shall sketch briefly some of the characteristics of the more important sources.

Demand by Private Enterprise. The major sources of demand for capital in an economy functioning under the capitalistic system are, normally, private, and the basic motive is profit. The demand for capital is primarily a reflection of the productivity of capitalistic processes. Private enterprise may bid for capital for almost any imaginable purpose, provided that a profit is anticipated from its use. Much new capital is also employed simply to protect existing profits from threatening competition or to bolster a declining business. Capital may be desired for manufacturing industry, for mining, for agriculture, or for power plants, warehouses, office buildings, rental housing, banks, retail stores, and all the other diverse types of business enterprise. It may be desired in the form of buildings, machinery, and other "fixed" capital equipment, or as "working" capital—inventories, cash balances, and funds with which to extend credit to customers, perhaps on an instalment basis. We might also classify the demand according to the type of capital wanted, that is, on the basis of whether the supplier is asked to assume only a small risk with prospect of a limited return or whether he is asked to supply "venture" capital to take a high degree of risk in hope of a large reward. Similarly, the capital may be required for only a brief period of employment or it may be wanted to share permanently in the business.

Private demand not clearly motivated by profit exists in some volume, but it is still of secondary importance. That portion of residential building designed to be occupied by the owners is an example of private use of capital which may or may not involve thought of financial gain. It will certainly be motivated in part by desire for certain comforts and for prestige. Prestige, achievement, approbation, and other social motives are often as effective in creating demand for capital as are economic motives, with corporate managements as well as with individuals.

Public Demand. With public bodies, the motives for capital demand are especially complex. They include social betterment, education, public safety and convenience, conservation of natural resources, conservation of "human resources," military protection, prestige, and savings obtainable through direct operation of certain essential industries. The borrowing of capital to finance excessive operating expenses or to prosecute a war, though involving wastage instead of creation of productive assets, must also be included, for it comes from the same fund of savings as does other capital.

The demand of public bodies normally fluctuates a good deal less than does private demand, for the reason that collectively people in assuming obligations tend to be limited only by their ability to meet the charges, whereas the private individual weighs carefully his prospects for making a profit. The business cycle also affects a governmental division differently from a private enterprise in that increased pressure for spending is brought to bear in hard times, tending to offset the restrictive effect of impaired resources and of pessimism concerning the future.

Foreign Demand. International demand for capital has normally been important in the past, on the part of both governments and business enterprises. Higher bids for capital have come from abroad because of opportunities to employ it more productively in undeveloped areas or in other countries where there has been a relative scarcity of capital resources. Domestic concerns have also invested directly in plants or other facilities in foreign countries. However, recent international political and economic problems have greatly altered and restricted the free flow of capital that once prevailed.

Factors Influencing Demand. Certain broad factors influencing the size and nature of the total demand for capital are worth our attention. The rate of return on capital as measured by prevailing interest rates is an obvious factor which will be considered later. Its importance as an influence on demand, however, appears to have been overstressed by some, inasmuch as it is a measurement of the relative adequacy of the supply of capital rather than a direct incentive to employ or not to employ capital.

Important basic influences on demand are indicative of the stage of economic development a nation has reached and the *rate* at which its production is growing. The standard of living attained by a nation will not only influence the quantity and nature of commodities demanded, and consequently the requirements for productive capital, but it will also affect the volume of savings becoming available for new capital creation. The volume of savings and their availability to the prospective user of capital are, in turn, influenced considerably by the degree to which financial institutions and security markets have been developed. The management of a corporation, for example, will be more likely to undertake an expansion program requiring new capital if it knows that the capital may be secured easily and efficiently through established financial mechanisms than if it is handicapped by a primitive financial system. As a matter of fact, the modern corporation itself is an advanced financial mechanism which operates to increase the demand for capital because of the ease with which it enables large accumulations of capital for mass production to be gathered together.

The rapid rate of growth of production in a country that is in an early stage of economic development requires the creation of a relatively large proportion of capital equipment and promises relatively large rewards to capital. The slower expansion of a more mature economy correspondingly entails production of a larger proportion of consumption goods and offers a smaller return to capital. The American economy is, of course, relatively mature.

Growth of New Industries. In the same fashion, on a smaller scale, the growth and maturity of important new industries and the decline of old industries influence the total demand for capital. The growth of the railroad industry was a major factor in the demand for capital during much of the nineteenth century, and its subsequent maturity and loss of business to competing transportation agencies has materially altered the nature of demand. The rapid development of the electric utilities, the automobile, our highways, our great cities, the telephone, the radio, oil production, farm mechanization, and countless other new inventions, new industries, and new social habits was the dominant force behind both the active demand for capital and its rapid accumulation in America during the early decades of the present century. Before World War II, however, it was generally conceded that the "life cycle" of many of these great industries and expansive forces had reached a stage of relative maturity, coincident with a slowing up in the rate of population growth, and many were convinced that capital creation would never again be carried forward at its former rate. Such pessimism has been controverted and largely dissipated in more recent years by a great expansion in capital creation, by more favorable population trends, by major scientific discoveries, and by the development of important new industries.

The Business Cycle and the Demand for Capital. We have already commented on the volatile nature of the bulk of private demand for capital. This instability arises primarily from the effect on plans of entrepreneurs and corporate managers of the more or less regular and frequently violent fluctuations in business activity, profits, security prices, and business sentiment which go to make up the business cycle. The effect of the cycle on the plans and decisions of users of capital has been heightened by the degree to which modern communications and the diffusion of statistics have helped to spread and intensify the alternating waves of confidence and of fear which accompany conditions of prosperity and of depression.

The causes of these cyclical fluctuations lie in a complex of interrelated economic, financial, and psychological factors regarding the relative importance of which there is no substantial agreement among economists, and for an adequate discussion of which there is neither space nor occasion here. Simply on the basis of the record, however, and because they have strong root in human nature, we are justified in assuming until it is demonstrated otherwise that such cycles are an inevitable accompaniment of our system of private capitalism. They may be expected, of course, to differ widely in length and intensity, and their effect on different individual industries will vary greatly, but they will continue to be a major influence on the timing and extent of new demand for capital.

Increasing Governmental Demand. In the United States the great increase during the 1930's in the proportion of total demand for capital that came from governmental units and agencies, as shown by Table 3, marked a trend the full significance of which it is as yet too early to appraise. Much of the capital secured was employed indirectly to bolster or take over weak private situations, such as farm and home mortgages, and much was consumed directly through relief payments. An important proportion, however, was employed in public works and related capital construction in "pump-priming" efforts designed to promote confidence on the part of businessmen and lead to increased private demand for capital, thereby serving the governing authorities as a useful tool with which to influence the course of general business fluctuations.

Table 3 is, of course, distorted for more recent years by war financing. Furthermore, it does not cover the substantial volume of private mortgage financing, nor does it include the very large amount of direct private investment, especially by corporations, made out of retained earnings, depreciation reserves, or other funds without recourse to the capital markets.

Contributing to the greater relative importance of governmental demand for capital in the 1930's were certain factors which operated to restrict private demand. The generally depressed level of business was the dominant factor, but there were also important restrictive influences of political origin. At least a minor deterrent, if perhaps a healthful one, was the stringent security legislation embodied in the Securities and Exchange Commission, which set up strict rules to curb some of the abuses that had occurred in the unregulated offering of new security issues in the past. Another influence was the tendency of large corporations to build up internal resources sufficient to render unnecessary large-scale resorting to public capital markets when new capital investment was required.

The Formation of Productive Capital. We have already indicated that there is a significant distinction between a mere reservoir of savings and an active supply of investment funds in search of employment. The owners of savings may or may not be willing to risk them in investment. A similar situation prevails between investment and the creation of actual

TABLE 3

NEW PUBLIC AND CORPORATE FINANCING, EXCLUDING REFUNDING, 1921–1947

(in millions of dollars)

Year	Domestic Corporate Issues *	Issues of States, Cities, etc , and Federal Agencies other than U. S Treasury *	Foreign Issues †	Increase in Gross Direct U S Treasury Obligations	Total
1921	1,701	1,321	623	— 540	3,105
1922	2,214	1,415	764	— 443	3,950
1923	2,635	1,380	421	— 1,079	3,357
1924	3,029	1,559	969	— 937	4,620
1925	3,604	1,521	1,076	— 731	5,470
1926	3,754	1,435	1,125	— 1,173	5,141
1927	4,657	1,562	1,337	- 1,039	6,517
1928	5,346	1,443	1,251	— 726	7,314
1929	8,002	1,418	671	— 1,009	9,082
1930	4,483	1,521	905	— 275	6,634
1931	1,551	1,310	229	1,800	4,890
1932	325	839	29	2,979	4,172
1933	161	547	12	3,010	3,730
1934	178	1,208	0	4,664	6,050
1935	404	1,005	64	2,078	3,551
1936	1,215	757	−5	3,848	5,815
1937	1,225	869	13	2,881	4,988
1938	873	1,452	35	2,153	4,513
1939	383	1,855	38	2,522	4,798
1940	736	1,212	2	3,064	5,014
1941	1,062	1,790	1	12,913	15,766
1942	624	450	0	50,232	51,306
1943	374	266	2	57,707	58,349
1944	646	250	17	64,753	65,666
1945	1,264	497	12	47,485	49,258
1946	3,556	1,079	10	−18,966	−14,321
1947	4,708	2,431	68	— 2,249	4,958

* Source *Commercial and Financial Chronicle*

† Source U S Department of Commerce.

productive capital goods. It was at one time assumed that savings would move almost automatically through the process of investment, ending up as productive capital goods. This theory, however, has failed to hold in actual practice.

The study of Moulton in *The Formation of Capital* demonstrated that a substantial excess of savings over demand for capital for productive employment in the 1920's resulted mainly in a great dissipation of capital through bidding up the prices of securities already outstanding.[7] For example, in 1929, the amount of savings available for investment after allowance for direct employment by individuals and corporations, termed "investment money," was estimated at 16 billions. The total demand for capital, however, as measured by net new security flotations plus an estimate of the volume of mortgage financing, was set at only 11.7 billions. Moreover, only 5 billions of this demand was for what was considered productive use. Thus, an estimated 11 billions of investment money was believed to have been consumed in 1929 in nonproductive use, to a large degree through bidding up the prices of existing securities, partly directly and partly through the agencies of investment and holding companies.

The Rate of Return on Capital. The rate of return on capital is simply the price paid for its use. Beyond this starting point of definition, however, little pertaining to the subject is simple. According to orthodox theory, the basic price paid for capital will depend on the interaction of the forces of supply and demand and will tend to be set at the point of marginal productivity, a point determined by the effectiveness of the least productive capital employed. Viewed practically, this customary explanation is of questionable utility. As we have seen in the preceding pages, the relation of supply and demand to capital is not merely quantitative, even if it were possible to measure this aspect accurately. The qualitative nature of both supply and demand is highly important, and unfortunately, owing to the unstable ingredient of sentiment, the qualitative attributes of capital are subject to very rapid change. A supply of capital one day in search of employment involving more than average risk and a high rate of return may the next day refuse any but the safest employment, for a very low return, because of some overnight political or commercial development harmful to confidence. Demand may likewise change radically, in nature as well as in amount, for no reason other than an altered appraisal of the future. All the varied factors of supply and demand we have been considering, and many more, share in the determination of the rate of return. In addition, governmental agencies have shown an increasing disposition to exercise direct controls over certain important classes of rates.

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[7] Harold G. Moulton, *The Formation of Capital*, Brookings Institution, Washington, 1935, Chapter X.

Limited Application of Interest. So far in our discussion we have avoided the phrase "rate of interest," which has been the traditional term for the return accruing to capital. Our reason has been that interest, as commonly understood, applies only to the fixed return paid on credit instruments. Theoretically, the basic or "true" rate of interest is a return to which capital is entitled without the assumption of risk. The return of dividend payments out of profits as a reward for risk assumption to the suppliers of "equity" capital is, in economic theory, an entirely different problem. For our purposes, however, it would be closing our eyes to existing facts to differentiate so basically between interest payments and profit return.

Under security capitalism, no investment can be said to be without risk, even with regard to that portion of the return which may be considered "true" interest. Whether the return is to be at a fixed or semi-fixed rate or on a profit-sharing basis is only a surface difference, one of degree, a matter of lesser or greater risk due to relative priority of position and of varying methods and amounts of compensation. This surface difference may, of course, be vitally important to the investor, as we shall see in later chapters, but it is well to begin with a warning against the assumption that different classes of securities are separated by an impassable gulf.

Components of the Rate of Return. We may gain a clearer understanding of the forces determining the rate of return if we list some of its major components over and above the basic marginal productivity of capital already mentioned. This basic productivity will vary from year to year, and there is no means of ascertaining it satisfactorily except over a relatively long period through a survey of average results. It is possible, however, to take a security involving a minimum of risk as a base and to account for the forces causing other securities to offer variously higher rates of return. As our premise suggests, the element of risk is by far the most important of these forces. This factor will be reserved for extensive discussion later, but it is obvious that risks may be of many kinds and degrees, and the proportion of return amounting to a premium for insurance against risk will vary greatly.

A second factor is the length of time for which the investment is to be made. Short-term interest rates and the long-term rate of investment return may bear quite different relationships, depending on the changing desire of the supplier of capital to have his capital available to him again very shortly or at some distant future date, or to take a permanent annuity or share in profits, as well as on the changing requirements of demand. The investor will want the higher rate, which is normally the long-term rate, but he must consider the possibility that he will secure the greatest return over a period by investing on a short-term basis now and transferring his funds to longer term investment later on what may prove a more favorable basis. The fact that the long-term rate normally is higher than the short is primarily a reflection of the increased uncertainty attendant upon payments promised for the distant future.

There is an obvious distinction between the rate of return, or yield, anticipated at the time of investment and the actually realized yield, which cannot be known in advance, and the investor is aware that the likelihood of a discrepancy in this respect increases with the distance in the future his commitment is to run. Long-term rates have, nevertheless, tended to fluctuate less from year to year than short-term. The reason is that the yield anticipated on a 20-year obligation, for example, is made up of the yield which would be expected on a 3-year obligation, let us say, plus the yield expected for the other 17 years. The influence of year-to-year credit surpluses or stringencies which so sharply alter the short-term rate will be minimized somewhat in the average expectation.

Because ready marketability of a security, through facilitating withdrawal from the commitment if desired, both lessens risks and makes the capital more easily available for other opportunities, the degree of marketability is found to be another component in the rate of return. A similar factor is that of "legality," which means legal acceptability for certain institutional and trust fund investments. It results in a lower rate of return on those securities supported by this special source of demand. A related factor is the geographical location of an investment with respect to the supply of funds for investment.

Whether the income from a security is exempt, or partially exempt, from taxation is another important factor affecting the rate of return it will offer. Other things being equal, the investor who must pay income taxes will naturally choose those securities with the greatest *net* return after taxes at the rate applicable to him.

Calculation of Yields. Use of the principal terms relating to the rate of return may be clarified by a simple mathematical illustration. Let us consider a 3½ per cent bond, quoted on the market at 105, due in exactly 10 years. The nominal *interest rate* or *coupon rate* of this bond is 3½ per cent. The *current yield* available to a purchaser is the $35 annual interest payment divided by the market price of $1,050, or 3.33 per cent. This would be the true yield if the security had no maturity date. However, it does not allow for *amortization* or writing off of the premium of

$50 which we have assumed to be paid in excess of the principal amount of $1,000 which will be received at maturity. This adjustment must be made to arrive at the *net yield to maturity* or true *yield.*

We may obtain an approximation of the true yield of premium bonds by simply assuming that the premium is written off in equal annual instalments over the life of the bond. Thus, in our illustration, $5 would be set aside each year as a return of the premium paid. The annual income would then be $30 instead of $35, and the annual yield would be 2.92 per cent on the average of $1,027.50 invested. This is a serviceable method of approximation. Computation of yield actually is a more complicated matter. Interest on bonds is normally paid semi-annually, and, in addition, for the rate of return to remain constant the amount of amortization of the premium must change slightly each interest period. In consequence, yields are normally determined by reference to a bond yield table which shows the net yields to maturity of bonds bearing various interest rates, arranged according to price and length of time before maturity.

Yields on *discount bonds,* or bonds quoted below their principal or par value, are calculated similarly. The true yield would then include allowance for the additional income obtained by virtue of receiving a greater sum at maturity than that paid when the bond was purchased.

Bonds may also be quoted on a yield rather than a price basis. Yield in this case always means net yield to maturity, and the actual price paid is determined by reference to a bond table which shows the price required to give the quoted yield, allowing for the coupon rate and length of time to maturity.

Fluctuations in Investment Yields. As we have pointed out, investment in new capital goods tends to be accomplished in waves in response to, and as a part of, cyclical variations in business activity. The combination of this fluctuating demand with the equally variable state of confidence among suppliers contributes to movements in investment yields and interest rates which are often highly erratic. The influence of longer term economic factors is also visible in past records of rates of return. There has been a tendency for rates of return to decline as capital supplies have accumulated, to rise when commodity prices have advanced materially, and to rise sharply under war conditions. The best measure of long-term interest rates and investment yields which we have available for a long period is the yield on British Consols, or perpetual annuities. In Chart 1 is shown the annual average yield on Consols since 1750, during most of which period this issue was held to be the nearest approach to a riskless investment available in the world. Although the

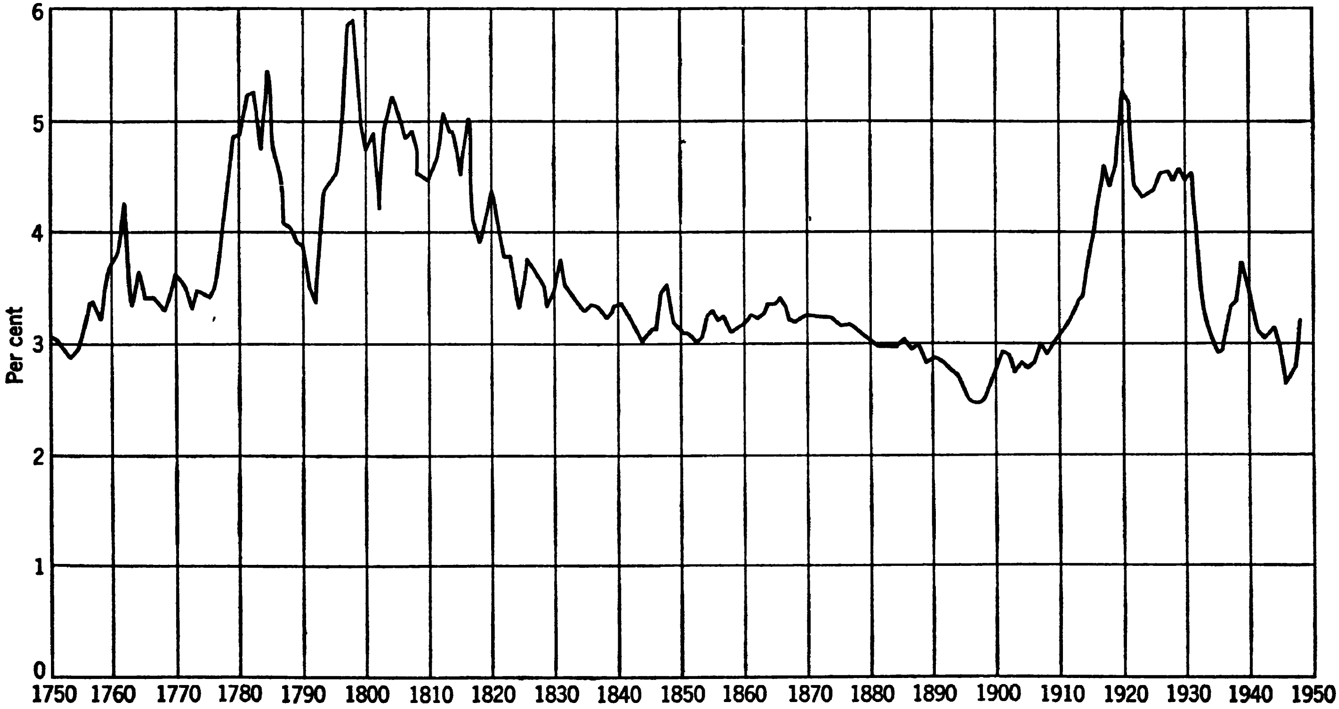

Chart 1. Annual Yield on British Consols, 1750–1948.

Sources: G. L. Warren and F. A. Pearson, *Gold and Prices,* John Wiley & Sons, New York, 1935, p. 403; statistical bulletins of the League of Nations, 1936–1948.

quality of Consols has been impaired in recent years, the record of their fluctuations gives a fair picture of the extent and the erratic nature of movements in investment yields.

Influence of the Government. A factor of growing importance recently has been the tendency of governmental bodies to take direct steps to control interest rates to the exclusion of "natural" forces. Regulation of the investment return allowed suppliers of capital for public utility enterprises has been the practice for many years, and regulation of usury is very old. More recently, a phase of government policy has been to force down interest rates in many previously untouched directions, notably in farm and home mortgage lending, but also in instalment financing of automobiles and household appliances, and in the wide range of industrial, railroad, and bank loans made by the Reconstruction Finance Corporation and the business loans handled through the Federal Reserve banks.

One purpose of the government in interfering with the working of economic forces in determination of the rate of interest has been application of theories designed to control and direct the flow of capital funds and to stabilize the business cycle. The main basis, however, for the relatively high degree of control of interest rates undertaken by governmental agencies in recent years has been the natural desire to borrow as cheaply as possible, and to continue borrowing cheaply, the tremendous sums required to finance World War II.

SUPPLEMENTARY READINGS

Board of Governors of the Federal Reserve System, *Private Capital Requirements,* No. 5 of Post-War Economic Studies, Washington, 1946.

Moulton, H. G., *The Formation of Capital,* Brookings Institution, Washington, 1935, Chapter X.

PROJECTS

1. Bring up to date the figures for national income and for savings shown in Tables 1 and 2. Comment critically on significant changes.

2. Obtain current figures for new public and corporate financing. How do they compare with the latest figures shown in Table 3? Try to supply the reasons for any changes in trend.

PART 2

The Mechanism of Investment

CHAPTER 3 Types of Investment Media

Media the Ingredients of Investment Programs. Before an architect submits the plans and specifications for a building he takes stock of the materials available and makes use of that combination which seems to be best suited to the project in hand. The same procedure is equally essential in the formulation of individual and institutional investment programs. Therefore, at this early stage in the discussion of investments, we are considering the several media available to investors—their distinguishing characteristics and the roles which these characteristics indicate as the ones best suited to the medium in question.

Though we shall deal with some of the same types of securities studied in courses in corporation finance, it will not be on the basis of their desirability as instruments for raising capital. Our concern here is solely with their merits as outlets for the funds of investors.

A strict interpretation of the term "investment medium" would perhaps limit our discussion to bonds, mortgages, and stocks, but in order to be more realistic we have extended its meaning to include other widely used outlets such as savings accounts in banks and savings and loan associations, the endowment type of insurance policy, and investment in real estate.

Qualities Sought in Investment Media. As we indicated in our introductory chapter, an investment operation differs from speculation or gambling primarily in respect to the emphasis placed on *safety of principal* and *dependability of income.* We shall subject the several media we examine to these major tests as well as to the somewhat less important ones of *marketability, chance of appreciation,* and *freedom from care.* The first two qualities named are essential to any medium deserving of an investment rating. The importance of each of the other three varies with the situation of the individual investor.

Simple Classification Unreal. A highly superficial view of the field of investment conveys the impression that an investment medium falls easily into one of two well-defined groups: (1) fixed-income obligations (creditorship), and (2) equities (ownership or shares in ownership). According to this grouping, investors who desired to stress such elements as safety of principal, dependability of income and freedom from care would buy high-grade bonds of corporations and divisions of the government and obligations secured by real estate or would place their funds in savings institutions or endowment-type insurance policies. On the other hand, if they wished to seek the higher return and greater chance of appreciation associated with ownership they would buy shares of stock in corporations or become the owners of such ventures as farms, businesses, and income-producing buildings.

In the financial system under which we live today, classification of investment media is much more complicated than the simple grouping into fixed-income obligations and equities indicates. In the first place, there is the desire of corporations to cater to every sort of investment taste and thus tap all possible sources of supply of funds. Coupled with this is the fact that the managers of enterprises desire to obtain as much money from investors as possible with a minimum of concession to them in the shape of: (1) liens against the income and assets of the company, and (2) grants of the right to vote, which might possibly enable them to secure control of the management. Efforts on the part of corporations to achieve this end have resulted in the development of a bewildering array of varieties of stocks and bonds and the virtual elimination of the old line of demarcation which once existed between these two groups of media.

In the second place, the common association of fixed-income obligations with safety, and of equities with a relatively high degree of risk, has never had any substantial basis in actual experience.

Many senior lien bonds are utterly worthless, while certain investments in equities continue to show a satisfactory return year after year and have undergone relatively minor fluctuations in their respective market values.

However, in spite of the fact that classification as a fixed-income obligation or as an equity implies nothing as to investment merit, it is true that the former group, *as a class*, does have the more creditable record for safety of principal and dependability of income.

A. FIXED-INCOME OBLIGATIONS

The Mortgage. Mortgages on agricultural and urban property once occupied a dominant position among investment media. The amount of government debt was relatively small and was held largely by the banks. Corporate bonds were available, but the volume was insignificant compared with the present total. Though there is still a large volume of mortgages in the hands of private investors, these media have come to occupy a minor place as far as the general public is concerned. Life insurance companies, the Federal Land banks, state and national banks, and the savings and loan associations have taken over a substantial share of this form of loan. Indirectly, of course, as owners of life insurance policies, savings accounts, or bonds and stocks of institutions which lend on mortgages, investors will continue to have a large stake in this field.

Investors who do lend directly on property secured by mortgage, or who purchase mortgages already in existence, usually receive a higher rate of return than those who invest in other types of secured loans, but certain distinct disadvantages inherent in this type of investment medium account for much of its decline in popularity among individual investors.

First, the mortgage has poor marketability if the investor finds it necessary to part with his investment. Even in good times, it is often difficult to find a buyer who wants an obligation of the particular size and one based on but a single piece of property, whereas the bonds of large mortgage loan organizations or those secured by mortgages on large urban buildings usually have a satisfactory "over-the-counter" market.

Second, a person who invests in mortgages must either assume all the numerous duties and responsibilities involved in looking after his loans or employ an agent to do it for him. As a holder of the bond of a mortgage institution, on the other hand, he has no concern with the individual mortgagors. This is the job of the institution whose bonds he has purchased.

Third, the purchase of a limited number of mortgages as an investment affords the investor scant diversification of risk, whereas the bonds of, say, the Federal Land banks are backed by the properties of thousands of borrowers. It is true, however, that an investment in bonds secured by a mortgage on a single hotel, office building, or theater does not provide diversification of risk.

Fourth, the older type of mortgage is of short duration, running from 1 to 5 years. This necessitates its renewal at frequent intervals or a search for a new investment if the loan is repaid.

The newer type of mortgage is of longer duration and provides for the amortization of the principal in regular instalments, but this presents to the investor the problem of the constant reinvestment of small sums of money. Experience has shown that persons who would not think of squandering a lump sum will dissipate relatively small payments instead of accumulating them for future investment.

Because of the somewhat larger return which they afford, mortgages will probably continue to attract a considerable amount of private funds. However, this type of investment should be left to those who have the time, skill, and facilities for giving to it the attention it requires and who are not likely to be embarrassed by its lack of marketability. The greater part of the funds which are placed at the disposal of owners of farm or urban property should reach the borrowers through banks, insurance companies, savings and loan associations, and other institutional lenders as intermediaries.[1]

Civil Obligations. Since we shall make a more intensive study of the issues of governments and their subdivisions in two later chapters, we shall content ourselves here with pointing out the investment characteristics of some of the more important public issues. Two world wars and an intervening depression of great severity have all but removed the bonds of foreign governments from the investment category. Consequently, with the notation that there are still a few sound foreign issues, we shall pass on to obligations of the United States and those of the states and local governments.

The *obligations of the United States* enjoy the highest possible investment rating with respect to safety, assured income, and freedom from care. The direct obligations of the government include the longer term Treasury bond, the intermediate-term Treasury note, the short-term Treasury bill and certificate of indebtedness, and three types of savings bonds. Government obligations issued before March 1, 1941, enjoyed various degrees of exemption from federal income tax, but the income derived from obligations issued since that date is fully taxable. The Treasury bonds appeal mostly to financial institutions and wealthy individuals. The coupon rate varies from 1½ to 3⅛ per cent with yields to maturity of somewhat lesser amounts when these obligations sell at a premium, as they have done in recent years. The differences in coupon rates reflect money market conditions at the time an issue is floated. They are listed on the stock exchange but are much more active in a broad over-the-counter market. They offer a combination of the highest degree of safety, a return fairly comparable to that of the choicest corporate bonds, and almost perfect marketability. Treasury notes and bills and certificates of indebtedness are bought largely by banks and by wealthy individuals who have need for a highly liquid medium as part of an extensive portfolio or by corporations temporarily in possession of excess funds. The short term, particularly of the bills and certificates, protects the investor from appreciable loss in case he sells his holding on a falling market, inasmuch as it will be paid at par within a relatively short time. The low return received is offset by the high degree of liquidity afforded.

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[1] A more intensive analysis of mortgages as investments will be undertaken in Chapter 27.

In addition to these more conventional issues of Treasury securities, the government is rendering a notable service to investors in providing three types of savings bonds, designated, respectively, as Series E, Series F, and Series G. The Series E bonds are sold at a discount of 25 per cent of their value at maturity 10 years after the date of issue. They may be had in several denominations, ranging from $25 to $1,000, maturity value. They are not transferable, but the government will redeem them at any time after 60 days. However, in order to realize the full 2.9 per cent rate of return involved in receiving $25, 10 years hence, for a present outlay of $18.75, one must leave his investment undisturbed for the entire period. Since the "E" bond was designed primarily to promote thrift among persons of modest means, purchases are limited to individuals and to $10,000 maturity value in any one calendar year. The Series F bond is sold at a 26 per cent discount and matures in 12 years. This affords holders a 2.53 per cent interest return if they retain their bonds to maturity. The "F" bonds also are non-transferable, but they will be redeemed by the government at a discount after 6 months. These bonds may be acquired by corporations and other business units as well as by persons. Purchase of "F" bonds alone or "F" and "G" bonds together is limited to $100,000 issued in any one calendar year. They have perfect marketability and, if held to maturity, afford an unusually good return for a security of prime quality.

The Series G bond is sold at face value and pays interest semi-annually at the rate of 2½ per cent, maturing in 12 years. It also is redeemable at a discount from its maturity value after 6 months have elapsed. As with the "F" bond, ownership is not limited to persons, although the $100,000 upper limit, for one of these two series or for both together, holds with respect to any one calendar year. For persons or institutions who desire perfect security and a current income that is liberal for a prime investment, and who will probably have no occasion to liquidate before maturity, the "G" bond is most attractive.

The *bonds of the several states* are now much more nearly uniform in quality and yield than they were in the past. With the universal increase in wealth and improvement in the management of fiscal affairs, there is little likelihood that the obligations of any of the states will again be repudiated. Since the federal government exempts state bonds from taxation, and most of the states exempt their own securities, the prices of these obligations are likely to be high and the yield correspondingly low. As a consequence, only those individuals in the high income tax brackets find it profitable to invest in these tax-exempt obligations. Since World War II, when state and local bonds were scarce and very dear, there have been heavy new issues, largely on behalf of veterans, that have caused the yield to increase somewhat, so that these obligations again hold some attractiveness for banks and insurance companies. For the person of modest means, with a relatively moderate income tax to pay, they are much less attractive than the higher yielding bonds of the federal government.

About the same conclusions can be drawn with respect to the obligations of governmental subdivisions like *counties, cities, and school districts.* However, there is much greater variation in quality among these issues than there is with those of the states. The result is that in order to obtain in a city bond safety comparable to that of a state bond, the investor must pay almost as high a price and obtain as unsatisfactory a return.

Corporate Bonds. Here we are confronted with so wide a variety of issues that only a few general comments can be made. With respect to the issuing corporation the individual has a choice of public service enterprises, manufacturing, mining, or merchandising concerns as well as a large assortment of other types of enterprise. These obligations differ with respect to the nature of the legal security offered by the borrower. Much more important is the great difference in the financial strength of issuers. The type of business and the legal form of the obligation are significant only as they have a bearing on the ability and willingness of the company to meet its commitments to investors.

Other things being equal, a bond secured by a mortgage or a deposit of collateral offers greater safety than an unsecured obligation, but the investor must be sure that "other things" are equal. When an investor chooses corporate bonds for his portfolio, rather than stocks, he should do so because of the superior claim they have on the earnings and assets of a company. In order to receive a surer return, he accepts a relatively low fixed income and is deprived of the right to participate in the higher returns that will be received on the stock if the company prospers. He has no voice in its management, and, if the bonds are callable, he may have to give up his attractive investment on any interest date. Furthermore, the chance of appreciation in bonds of investment quality is relatively small.

The high-grade bonds in a portfolio should serve as a backlog that will produce income dependably, even in time of depression, and that is not likely to undergo a serious decline in market value. Since some degree of marketability is desirable, listed bonds or those with a good over-the-counter market are to be preferred to small unlisted issues. It cannot be repeated too often that the bond form should not lull the investor into a feeling of false security. If he foregoes the allurements of higher return and greater chance of appreciation associated with investment in equities, he is entitled to a high degree of safety.

Preferred Stock. Although it bears the name "stock" rather than "bond," as an investment medium preferred stock possesses some bond characteristics. In fact, the relatively few high-grade preferred issues outstanding compare favorably with sound bonds as far as stability of income and safety of principal are concerned. There are, of course, some high grade preferred stocks which participate with the common in additional earnings, but they are few in number and in a period of prosperity do not enjoy the marked appreciation in price which is experienced by the common stocks of the same companies. In the great majority of cases, the preferred stock has exchanged its right to vote and participate equally with the common in the corporate earnings for priority of dividend payments and of distribution of the assets in case of liquidation.

The preferred stockholder, it is true, possesses none of the legal rights and remedies which are attached to bond issues, but, as we have observed, such rights and remedies really contribute relatively little to the investment merits of a given security. The chief disabilities suffered by the preferred stock as contrasted with the bond are: (1) the payment of interest is mandatory while the preferred dividend may be passed with impunity, except in rare cases where the contract limits such freedom of action; (2) in cases of reorganization or liquidation, particularly where there are bonds outstanding also, preferred shareholders are in a relatively unfavorable bargaining position.

Preferred stocks have often been condemned as investments because they lack the security and steady yield of bonds and yet are denied the right of unlimited participation in the profits of the corporation which goes with ordinary stock ownership. In spite of these handicaps, they continue to be employed by a wide variety of enterprises and to be sought after by the public. However, from the standpoint of stability in market price and certainty of income, as a class they have not so good a record as bonds. If one, therefore, were to apply the same rigid tests to preferred stocks as to bonds, he would find that only relatively few of the former would qualify as high-grade investments and that, as a consequence, their prices would be so high that the yields would be little, if any, higher than those obtained on bonds of the same quality.

Other things being equal, one would favor a preferred stock which had no other obligations ahead of it in the corporate structure, but some companies are so strong and have maintained their earnings so well in periods of depression that their preferred stocks enjoy the highest investment rating in spite of the presence of senior securities. Experience during the long depression following the crash of 1929 has shown that it is not the mere existence of issues senior to the preferred that impairs its chances of receiving its contractual dividend. What really matters is the amount of fixed charges and the extent to which these charges exhaust the earnings which would otherwise be available for paying the preferred dividend. In the selection of investments, an investor should subject preferred stocks as a class to even more rigorous standards than he applies to bonds as a class for a reason that we have already indicated, viz., the mandatory nature of interest payments as opposed to the discretionary powers customarily possessed by corporate managements with respect to declaring preferred dividends. True, the directors must pay the preferred dividend before paying anything to the common stockholders, but usually nothing hinders them from passing both dividends.

Time and again it has been demonstrated that corporations are run for the benefit of the management or the common stockholders, not for the preferred stockholders. Whereas bondholders when denied their interest may take prompt action to foreclose or at least work out a compromise reorganization, the preferred stockholder who does not receive dividends must usually sit by impotently until earnings revive and the common stockholders are pleased either to recommence dividends and eventually pay up those in arrears or else to offer a plan of compromise distinctly to their own advantage.

There are constantly being offered to the public the preferred stocks of new enterprises. In a few instances, like that of a public utility having an assured monopoly in a substantial territory, with perhaps a considerable volume of business already under contract, newness is not a serious objection, but, as a rule, the profitableness of any new concern is an uncertain quantity. It follows, therefore, that its stocks—both preferred and common—are speculations rather than investments until such time as the company has demonstrated its ability to produce adequate and steady earnings.

Preferred dividends may be either cumulative or noncumulative. Other things being equal, of course, the cumulative type of stock is much more desirable, but here again the strength and stability of the enterprise should be the chief considerations. The advantage possessed by the cumulative type, though significant because of the extra pressure thus placed upon directors to maintain payments, is not always so great as the terms indicate. True, the holders of cumulative preferred stock upon which dividends have been passed have the prospect of receiving them later, whereas an unpaid noncumulative dividend is lost forever. On the other hand, a majority of corporations whose earning power is inadequate to permit payment of the dividends on cumulative shares for any considerable length of time, so that large sums are in arrears, never become sufficiently prosperous to be able to clear up this obligation, and the owners of the preferred stock are eventually prevailed upon to accept some compromise arrangement in discharge of their claims.

The noncumulative preferred stocks on the market are nearly all those which grew out of reorganizations. As a class, therefore, they have poor standing, particularly since most of them are the issues of railroad companies. The management has in all too many instances subsequently subordinated the interest of the preferred stockholders to those of its own group, at times passing the preferred dividend even when it was earned, or at least whenever the interests of the common stockholders would be furthered thereby.

Savings Deposits. In opening a savings account, or its equivalent, in a savings institution such as a bank, savings and loan association, or the postal savings department of the post office, the investor employs the institution as his investment intermediary. He is, therefore, freed from the necessity of selecting and supervising a list of securities or other media. Given proper management, supplemented by adequate public regulation, the savings institution will provide even depositors of trivial sums with adequate diversification and wise selection of risks.

Mutual Savings Banks. These banks, largely confined to the northeastern section of the United States, have an enviable record attributable to their unusually sound management coupled with strict public regulation. Their assets are owned by the depositors, there being no capital stock. In order to restrict the services of the banks as much as possible to persons of modest means, upper limits (e.g., $7,500 in New York) have been placed on the size of individual accounts. Although all the net income derived from the banks' loans and investments belongs to the depositors, it is customary to pay only a conservative fixed return and accumulate the remainder in a surplus account out of which dividends can be paid during a slump in current earnings. The management can demand advance notice before permitting a withdrawal, but this option is rarely employed. Mutual savings banks have the privilege of insuring their deposits with the Federal Deposit Insurance Corporation up to $5,000 for each account, but the majority of them have not done so. This sort of outlet for a person's funds is best adapted to those who do their saving in small regular amounts and are more interested in the accumulation of a substantial old age and "rainy day" fund than in the semiannual income paid them by the savings bank. They enjoy a high degree of freedom from care and, normally, can withdraw any part of their accumulations as they see fit.

Postal Savings System. Against the strong opposition of the privately owned banks, the United States Government, in 1910, created savings departments in post offices. The justification seemed to be that our foreign population had been accustomed to such facilities in their native countries, and that all too frequent epidemics of bank failures had played havoc with the accumulations entrusted to banks. It was not until the "bank holiday" period of the early 1930's, however, that the postal savings system received any considerable amount of patronage. The flight from privately owned banks during those dire times caused the number of postal savings depositors and the amount deposited to increase some threefold. Subsequently, even though confidence in privately owned banks was restored, the fact that the post office continued to pay 2 per cent interest while the rate offered by the banks was undergoing a steady decline has been responsible for continued growth in the volume of postal savings.[2] Among the less favorable features of the system are the upper limit of $2,500 per account and the fact that interest does not compound automatically but must be redeposited. On the favorable side, notice of withdrawal is required only if a postmaster is short of funds at the time. Although better bank regulation, plus the insurance of deposits, has lessened the need for a postal savings system, it still attracts some four million depositors because of the maximum security afforded, the easy accessibility, and the relatively generous interest rates paid; but if a marked rise in the rate of interest should enable the banks again to pay a rate materially higher than that obtainable at the post office, the latter's accounts will probably suffer a considerable shrinkage.

National and State Banks. Most privately owned banks maintain savings departments. Accounts in all national banks, and in the great majority of state banks, are insured with the Federal Deposit Insurance Corporation up to $5,000 per account. They have the right to demand notice before permitting withdrawals, but only in a time of great crisis has this right been exercised. Depositors in regular banks have not enjoyed the uniformly strict standards of management found in the mutual savings banks, but an account of $5,000 or less in an insured bank is safe, pays about the same rate of interest, and is as easily liquidated in time of need. In placing substantial sums in a savings account, large depositors, in effect, turn over to the bank's officers the job of selecting and supervising like amounts of securities and providing suitable diversification of risk. Those with accounts much in excess of the limit of $5,000 which is placed on insurance must recognize the need for complete assurance as to the soundness of the bank concerned, for the rate of interest they receive will always be relatively small. Aside from the desirability in some instances of holding a substantial liquid reserve in this form, they would do better to build up investment portfolios of their own.

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[2] When New Jersey and Mississippi set maximum interest rates for savings in state banks at points below 2 per cent, the postal savings rates for those states were reduced to those prescribed for state banks.

Savings and Loan Associations. Also known as building and loan associations, these organizations appeal to persons who desire a somewhat larger rate of return than that paid by banks. The mutual types, such as the federal savings and loan associations and many of the state-chartered associations, issue "share accounts" which resemble savings deposits but are participations in ownership and do not have the unqualified right of withdrawal. To make a withdrawal of funds one surrenders his shares to the association; under unfavorable circumstances this may involve a considerable delay. In some states, associations resemble a state or a national bank in their organization and methods of doing business. The capital of such associations is contributed by a group of stockholders who own the association's assets and are entitled to its earnings. Savings deposits are then received from the general public, the savings deposit and the passbook system employed closely resembling that found in a bank, and a definite rate of interest, fixed at regular intervals, is paid to depositors. Accounts in all federal associations and in such state associations as avail themselves of deposit insurance are insured in the Federal Savings and Loan Insurance Corporation up to $5,000. An insured account, or even an uninsured account in a well-managed association in states with sound laws and adequate regulation, provides adequate safety and a higher return than is paid by banks. However, savings and loan associations are more likely than banks to place restrictions on withdrawals when money is "tight," for their assets consist largely of relatively long-term real estate loans.

In the foregoing discussion of savings institutions we have purposely avoided giving any specific rates paid, except in the case of the post office. Rates differ considerably for different areas and even in the same community. They are also subject to change as conditions in the money and capital markets change. The prospective investor can always ascertain the prevailing rates very readily.

Life Insurance. The breadwinner of a family may die or become disabled before he can accumulate a sufficient estate to enable his dependents to carry on without his earnings. To hedge against this risk, he should buy the maximum amount of life insurance consistent with the other important demands on his income.

Insurance companies have combined in a great variety of ways (1) the protection of the insured's beneficiaries against his death or permanent disability and (2) the creation of an estate for the insured himself to enjoy.

The purpose of this discussion will be served sufficiently if we examine briefly three common types of policy as investment media.

First, what is known as the "straight life" policy requires the insured to pay a fixed annual premium up to the time of his death. If the policy is of the participating type, he will share in the annual dividends the company distributes as a result of having an excess of income over disbursements. He may apply his dividend to his premium payment, use it to "pay up" his policy in advance of his death, or buy additional protection with it. As successive premium payments are made, the insured's policy is acquiring an increasing cash surrender value. If worst comes to worst, he may have his policy canceled and come into possession of the cash accumulation. More often, he will use his policy as security for a loan from the insurance company, or a bank, up to the full amount of the cash surrender value.

Second, the so-called endowment policy combines the hedge against an insured's death with systematic savings. If the insured has obtained, say, a $10,000 thirty-year endowment policy, his estate will receive $10,000 should his death occur at any time after the policy goes into effect. If he is still living at the expiration of the 30 years, he may (a) receive the $10,000 in cash, (b) leave it at interest with the company, (c) have it paid to him in instalments.

Third, an annuity may be purchased under which an insurance company agrees to pay, say, to a husband and wife, a definite monthly income so long as either of them lives. If they live to a ripe old age the total amount they receive will be greatly in excess of the cost to the annuitants, but, if their deaths occur relatively soon, the return received will fall far short of the cost. However, with a maximum degree of safety and freedom from care, an income has been provided that is considerably more liberal than could be obtained from an investment in prime securities. Naturally, in this type of provision for income in old age, there is nothing left to pass on to one's heirs.

With respect to what type of insurance it is best to buy, generalizations are unsafe. It does seem obvious, however, that young men with dependents and no source of income other than their current earnings should buy policies that stress the protective, rather than the investment, aspect of life insurance. The lower premium charge for these "straight life" policies enables the insured to provide his dependents much more adequate protection when it is most needed. Later, the investment type of policies may be added in anticipation of old age.

B. EQUITIES

Meaning of Equities. Thus far we have dealt with investment media which promise to pay fixed sums of money. The investor, in a broad use of the term, may be said to be the creditor of the institutions to which he is looking for these payments. The owner of preferred stock, however, occupies a somewhat anomalous position among the other claimants, for in most instances he is an owner who has accepted a limitation of his rights of ownership in return for a prescribed prior claim upon the earnings and assets.

In this part of the discussion, we turn to the "equity" or ownership of enterprises as an outlet for investment funds. In real property like houses, business buildings, or farms, the equity is the stake that the owner-occupant or landlord has in the property, the mortgagee, if any, occupying the position of creditor. In the field of business, the equity ownership may take the form of an individual proprietorship, a partnership, a business trust, a corporation, or some of the other organizational devices employed. In any of these forms, no matter into how many parts it is divided, the equity is the ownership with all the risks and opportunities for profit which this implies.

Although proprietorships and partnerships involve investment of funds, we shall confine our discussion here to equity participations in corporations, that is, common stocks.

In the field of investment, the term "equity" is often used loosely to apply to some fixed-income investment of speculative quality. Strictly speaking, of course, the ownership of bonds, no matter how poor their quality, does not carry with it the rights of ownership in the debtor corporation. With few exceptions, senior securities (i.e., bonds and preferred stocks) do not enjoy that most valuable of the rights inherent in ordinary common stock, the right to unlimited participation in the earnings.

Class A Common Stock. The decade following World War I was characterized by a desire on the part of management and promoters to restrict voting power as much as possible and, at the same time, to attract the funds of persons who desired to share fully in the growing profits of industries. The end sought has been accomplished through the creation of Class A and Class B stocks. The former are usually given some preference in the distribution of the earnings. As an investment medium, such Class A stock is inferior to the preferred stock in that the corporate management feels under less obligation to make the prescribed dividend payments. There exists a quasi compulsion to meet the dividend on preferred stock, especially where it is earned, whereas no such tradition has been created with respect to Class A shares. Too often the investor has discovered that such allegedly ideal combinations of safety of principal and opportunity for unlimited participation in corporate profits are a delusion and a snare. As so frequently happens, the attempt to play the parts of preferred claimant and entrepreneur simultaneously is not satisfactory.

Closely Held Stocks. Other things being equal, stocks that are widely held and enjoy a free market are more desirable than those whose supply is concentrated in a few hands, for, in the latter case, the sale of a block of shares would unduly depress the market price. However, even where a large number of shares is open to purchase and sale, it is not to the investor's interest for a considerable portion of the issue to be in the hands of professional traders and stock exchange houses as part of what is technically known as the floating supply. As such, it changes hands often and in response to slight shifts in price, since it tends to be influenced unduly by prevailing speculative psychology. The ideal stock, therefore, from the point of view under consideration, is one which is widely held by bona fide investors.

Are Common Stocks Investment Media? Since all the current obligations of a corporation, both fixed and contingent, have precedence over the payment of dividends on the common stock, and since, also, the declaration of such dividends lies entirely within the discretion of the board of directors, ownership of common stock, as a class, is definitely more speculative than that of bonds, as a class. The possession of true investment quality involves relative stability in market price and yield—a test which only a limited number of common stocks are able to meet. In the violent collapse in security prices which occurred during the period from October, 1929, to June, 1932, the average price of corporate bonds listed on the New York Stock Exchange declined a little less than

45 per cent while the average price of listed common stocks declined approximately 90 per cent.

Individual instances in which the investor places his sole reliance on the common stock of a single company and never fails to receive ample dividends, even throughout a prolonged depression, are the exceptions which prove the rule that owning stock of a single company is not investment. In fact, we would not regard the placing of all of one's funds in the bonds of a single company as sound investment procedure. If that is true, it is all the more necessary for the investor in common stocks to distribute the risk among several types of enterprise. The yield from stocks, as a class, moreover, is likely to be so cyclical that, in order to insure an adequate income in time of depression, one must have a substantial portion of his funds in fixed-income securities. Thus even the possession of a widely diversified portfolio consisting exclusively of equities cannot be regarded as sound policy.

Until relatively few years ago, no reputable treatises on investment included common stocks in their treatment of investment media. The idea prevailed that no common stock provided the basic investment qualities of safety of principal and stability of income. Two principal factors have been responsible for the change of attitude which has occurred. One is the fact that enterprises of great financial strength and reasonable continuity of earnings are much more prevalent than they were a generation ago. The other is that there has existed either the threat of inflation or periods in which it was in actual operation during the half century that has elapsed since the long post-Civil War secular decline in prices came to an end. In periods of rising prices, in times when purchasing power of the fixed sums received on senior securities declines, larger dividends are usually distributed to owners of common stocks.

The period from 1922 to 1929 was most favorable for the elevation of equities to the status of investments. Both business and the stock market were engaged in the steady upward march which culminated in the crash of 1929. Persons who held common stocks of good companies during that period had no occasion to find fault with the steadiness of the income or market behavior. In fact, income tended to increase and market value to undergo a gratifying appreciation.

The collapse that followed, as we have already indicated, brought the average price of listed stocks down to a fraction of what it was at the peak. In the long depression following this collapse, earnings disappeared or were greatly reduced, and stockholders in general found dividend income sharply curtailed or even eliminated.

This disastrous experience does not prove that common stocks should never have been given investment status. The fault did not lie with stocks but with the wholesale way in which sound investment practice was thrown to the winds. With respect, therefore, to common stocks as investments, experience and logic seem to warrant their inclusion in investment portfolios. They serve as a hedge against inflation; that is, in a period of rising prices, they supplement the all too limited return received on bonds, and they offer a better chance for appreciation. However, the performance of individual enterprises is liable to be erratic, and therefore proper diversification is essential. Furthermore, the more erratic and often unpredictable price and earnings behavior of common stocks as a class makes it imperative that the investor have other adequate and much more dependable sources of income to fall back upon in the event of shrinkage in his common stock dividends.

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PROJECTS

1. Formulate a statement summarizing your own conclusions respecting the proper sphere of each of the investment media discussed in this chapter.

2. Submit supporting data and your own comments with respect to the way in which World War II affected these media.

CHAPTER 4

The Mechanism of Investment

Institutions Engaged. The principal organizations engaged in the purchase and sale of investment media are mortgage companies, investment banking houses, commercial banks, stock brokerage firms, and the organized securities exchanges through which the stock brokerage firms execute orders for their customers. Some houses confine themselves exclusively to dealings on a stock exchange, whereas others are exclusively investment bankers; that is. they have no membership in any stock exchange but participate in the purchase and distribution of new security issues and buy and sell already outstanding issues for customers on a commission basis. Still a third type of firm combines under the same management an investment banking and a stock brokerage business.

Until 1933, commercial banks were permitted to engage freely in the investment banking business either directly or through an affiliated corporation. Federal legislation in 1933 and 1935 restricted their activities in this field to issues of the United States Government or one of its subdivisions (state, county, city, etc.). A commercial bank may, however, as a convenience to a patron, take his order for the purchase or sale of securities and turn it over to a dealer or broker to execute.

Before this modern machinery of the capital market was developed, promoters of new companies solicited funds directly from individuals. Even today, new and highly speculative ventures usually follow the same procedure, although investment houses will undertake to distribute the securities of larger and more promising new promotions. They are expected, however, to make it clear to purchasers that the issue is a speculation rather than an investment.

If a new company is a soundly conceived combination of well-established older concerns its securities are likely to have an investment status right from the start, and the most scrupulous dealers will not hesitate to participate in their distribution.

The Over-the-Counter Market. In the securities business the term "over-the-counter" is applied to those purchases and sales that are not executed on the floor of an organized stock exchange. Thousands of issues of bonds and stocks are not listed on any exchange, and even those that are listed may be bought and sold over-the-counter (i.e., outside of the exchanges). For example, although United States Treasury Bonds are listed on the New York Stock Exchange, the volume of purchases and sales through other channels greatly exceeds the amount consummated through the exchange.

Large buyers and sellers such as investment companies have tended to carry on an increasing percentage of their dealings in listed stocks in this manner. Particularly large transactions of this type have been undertaken for the account of estates and foreign governments desiring to dispose of important blocks of shares. Many over-the-counter dealers also carry out customers' transactions in listed stocks through the medium of exchange members, reimbursing themselves by adding a stock commission to the price paid for a security. There has been much agitation for an arrangement whereby these dealers could split commissions with members of stock exchanges.

The investment banking house is the dominant institution of the over-the-counter market. It may be a wholesaler only, a combined wholesaler-retailer, or a retailer only. It may have a nation-wide chain of offices or confine its operations to a single place of business. It may do a general securities business or specialize narrowly in some such field as United States Government issues, municipals, or public utilities.

Alone, or as a member of a group of houses, it engages in the purchase, underwriting, and distribution of new issues of securities of divisions of government or of the various types of business corporation. Investment houses are not only the investor's chief method of access to new security offerings but also a chief medium for obtaining securities already outstanding. When an investment banker participates in the distribution of a new issue of stock or bonds he becomes the owner of his allotted portion, and in selling them to investors for a profit he is performing the function of a dealer. When, however, he undertakes for a customer to procure or dispose of securities already outstanding he is merely the customer's agent, and he charges a commission for the service.

Both law and custom differentiate between the broker and the dealer in investment securities, even though these functions may be performed by the same firm. As a broker he cannot sell securities of his own to a customer or buy securities from him. Technically, he is exempted from the regulations and penalties which the federal and state regulatory acts impose on investment dealers respecting representations to purchasers of securities. In actual practice, where a firm is both broker and dealer, extreme caution must be exercised to be sure of escaping liabilities imposed on dealers who make sales as principals. For instance, stock held on margin for the account of customers is in the firm's name. If underwriting were to take place in this issue, the firm would have to report its holdings of record. Furthermore, the brokerage department cannot accept as collateral securities offered by the investment banking department as principal until 6 months have elapsed.

Other Services of the Investment Banking House. The nonbrokerage services of the investment houses are not confined solely to public offerings such as we have described above. First, they may sell an entire issue privately to one or more large purchasers. Second, they may confine their part in the sale of an issue to underwriting it, that is, agreeing to take off the corporation's hands any unsold portion. This device is used particularly where the company undertakes to sell new shares to its old stockholders. If the latter buy the entire issue the investment banker merely pockets his underwriting fee for assuming the risk, and his duties are over, but, if some of the issue fails to be taken by present stockholders, he must buy it at the specified price and dispose of it as best he can. Third, a corporation, instead of selling an issue outright to the investment houses, has, on occasions, retained the responsibility for its successful sale and paid the bankers a commission on the amount they sold. Fourth, without assuming any definite legal obligation to do so, the investment house usually "makes a market" for issues of securities it has sponsored. Other dealers and brokers, as well as investors, will look to it as a dependable source of or outlet for these particular issues. This practice enables the investor to employ his own dealer's services no matter what special type of security he wishes to buy or sell, for his dealer has access to all other dealers, whether they do a general business or specialize in governments, municipals, or some special class of corporate security. Fifth, many investors look to their investment bankers for advice respecting the management of their investment portfolios. We shall deal with that phase of the subject in our final chapter, but it is appropriate to make the comment here that the executives and salesmen, in investment houses, either through their sales arguments or the advice given to customers who seek help with their investment problems, have a great deal of influence on the choices investors make. Sixth, though an investment banker has faithfully carried out the provisions of the state and federal laws and regulations, and thereby discharged his legal liability to his customers, tradition has decreed that the obligation to safeguard the investor's interest shall continue throughout the life of the issue. This does not involve the making good of losses from shrinkage of the market value of the security or from failure to pay interest or dividends. It does, however, morally obligate the sponsors of security issues to do all they can to check unfavorable developments in a company's affairs. If a receivership results, they are expected to take the lead in forming a protective committee and to see that in the reorganization this issue is accorded equitable treatment. In rare instances, a sponsoring house has gone so far as to reimburse purchasers for the losses they have incurred. Naturally, the banking houses would soon be wiped out if they undertook to make good all the losses which violent reverses in economic conditions bring to the investment market.

Private Placement with Institutional Investors. Until recently relatively few large offerings of securities had been made except through one or more investment banking houses. However, of late years, important corporate borrowers of capital funds, to an increasing extent, have been selling issues directly to large investors, particularly the life insurance companies. When investment bankers have been employed in these private placements they have been employed merely as sales agents with a correspondingly smaller fee. Even after a prospective originator has gone to great lengths to investigate a proposed flotation, the corporation in question may decide to sell it directly to an insurance company. The principal factors responsible for this wave of private placement are: (1) the ease with which a large insurance company can absorb issues running into many millions, and (2) the costly and exacting requirements which have to be met in order to comply with the federal securities laws in the event of public distribution. Not infrequently the direct sale of an issue to an investor has saved the issuer several hundred thousand dollars. Furthermore, the company could avoid the revelation of data which might be used to its detriment by its competitors or others. There are, on the other hand, distinct advantages in selling an issue to the investment bankers for distribution to the general public. The company will probably receive a somewhat better price. Then, too, a wide distribution of its securities is better for both the issuer and the owners. Should the insurance company, or other purchaser of an entire issue, decide to dispose of it later, there may be many unfavorable features, from a general sales viewpoint, that may hamper its distribution to the public. If it is to be offered to the public, it will then have to go through all the procedure laid down by state and federal laws.

Since many billions in savings are invested in insurance policies, it might be well to require that even privately placed issues undergo the same careful scrutiny from the Securities and Exchange Commission to which the public offerings are subjected. However, the rigid regulation and supervision to which most of the states subject life insurance companies make such a step less necessary for companies under their jurisdiction.

The Investor and Competitive Bidding. So far as important high-grade corporate issues are concerned, the leadership in the origination, underwriting, and distribution of these obligations has, in the past, been principally in the hands of a few major firms, being heavily concentrated in a small group of New York and Boston houses.

By long-established tradition, competition among these houses for a given corporate issue has virtually been nonexistent. In numerous instances, either members of the sponsoring firm are directors of the companies whose issues they originate or there exist other ties which bind the corporation to a particular investment banking house. Spurred on by certain houses who resented the inability of "outsiders" to procure important originations, the Securities and Exchange Commission has in recent years taken a firm stand in favor of competitive bidding for new issues.

This has long been the customary practice in the field of civil loans where public funds are involved. In the realm of private finance, the offering of new issues for competitive bids was largely confined to railway equipment obligations. The passage of the Public Utility Holding Company Act of 1935 placed both the holding company and its operating subsidiaries under the jurisdiction of the Securities and Exchange Commission and thereby enabled the Commission to enforce a ban on noncompetitive issues by these companies. Certain of the states also have such a requirement for public service corporations doing an intrastate business. A similar ban has been placed by the Interstate Commerce Commission on most of the issues of the railroads under its jurisdiction.

What concerns us here is whether competitive or noncompetitive origination of new security issues better serves the interest of the investor. The long-established noncompetitive system permitted a close tie-in between the corporation and its bankers. Just as a person attaches himself to a certain physician, calling upon him alone for a specific type of medical service whenever he requires it, so the typical American corporation has looked on a given investment banking house as "its" banker and has called upon it alone whenever new financing was contemplated.

It has been assumed that the financial problems and policies of a company are of a continuing nature and that sound corporate health requires the establishment of a permanent relationship with a single banking house. The latter will thereby acquire, presumably, an intimate knowledge of its clients' affairs and be able to serve them in a way not possible for a firm which merely happens to be a successful bidder for some one issue of the company's securities.

On the other hand, it is not to the investor's interest to have too close a relationship exist between a corporation and one firm of investment bankers. Under competitive bidding the corporation is likely to receive a higher price, and the investor may be given just as favorable terms. Furthermore, under the noncompetitive system, when the issuing company gets into trouble, its investment banker may be disposed to favor the interests of its management and dominant stockholders when they run counter to those of investors. The spread of competitive bidding into the railroad and utility fields has no doubt dealt a blow at whatever undue domination individual investment houses have had over their corporate clients. Where the security is of unquestionably high quality, the problems incident to its issue are relatively simple, and market conditions are good, the sale of securities by competitive bidding has much to commend it. On the other hand, where a situation calls for a great deal of expert financial guidance, both before and after the issue is sold, close and continuing relationship with the investor's own banking house, implicit in the noncompetitive system, will, in the long run, be best for both the corporation and the holders of its securities, if the relationship is not abused.

The Investor and the Security Salesman. The United States Government customarily sells its obligations directly to investors, but, as we have noted earlier, the great bulk of other new issues, both public and private, are obtained "over-the-counter" from salesmen or through an order placed on one of the securities exchanges.

Although a large part of the population owns at least some United States Savings Bonds, and stockholders of corporations run into the millions, only a relatively few are likely prospects for a reputable new issue in process of distribution. The sales appeal, therefore, will be confined largely to well-to-do individuals and to banks, insurance companies, investment companies, and other institutional buyers. Naturally the lists of prospects for the various types of issue will vary materially. For example, a bond of the highest quality will not be offered to buyers in search of liberal income and marked appreciation in market price. Conversely, it will be useless to call on life insurance companies and savings banks when the security obviously cannot meet their strict investment requirements.

Salesmen from the better investment houses will not only have been thoroughly schooled with respect to the issue they are offering but will also have acquired a background in economics, corporate finance, and the general investment situation. As we shall see in our discussion of public regulation, the company and the salesman are subject to severe penalties if they do not confine their sales efforts to "the whole truth and nothing but the truth."

Many investors rely wholly on the salesman's advice with respect to the suitability of the security he is offering to their particular investment needs. Undoubtedly, there are salesmen with such high ethical standards that they would forego a sale and a commission rather than sell to a customer something he should not buy. However, the fact that their livelihood depends on making sales serves to disqualify them as investment counselors.

In many instances, a customer who can finance the purchase of a new issue only by parting with holdings he already owns is persuaded to make such an exchange without giving due consideration to the vital question whether it is consistent with the maintenance of the sort of investment policy best suited to his requirements. All of this shows that buying securities calls for intelligence and knowledge on the part of the buyer. He can never build a sound investment program by relying implicitly on the representations of the security salesman.

The National Association of Securities Dealers. Although such organized groups as the Investment Bankers Association of America and the Investment Bankers' Conference, Incorporated, have done much toward raising the standards of investment banking practice and protecting the unwary investor, their efforts were not sufficiently far-reaching to constitute effective self-regulation. The nearest approach to it was the brief period of the National Recovery Administration.

In 1938, the passage of the Maloney Amendment to the Securities Acts of 1933 and 1934 empowered the Securities and Exchange Commission to supervise the formation and functioning of associations formed for the purpose of regulating the conduct of over-the-counter trading. Pursuant to this legislative action, the National Association of Securities Dealers, Incorporated, was formed in 1939.

The principal objects of the association are: (1) to provide regulations and regulatory machinery with a view to preventing fraud, promoting square dealing, and assuring reasonable charges to customers; (2) to secure greater uniformity with respect to both practices and quotations;

(3) to establish tribunals for the settlement of disputes among dealers and hearing complaints of customers against dealers. Appeal is provided from the local business conduct committee's decision to a regional body. From there appeal may be taken to the central board of governors, thence to the Securities and Exchange Commission, and finally to the federal courts.

Members of the association have striven hard to fulfil its objectives. The over-the-counter dealer prefers self-regulation to that imposed by a government commission that is sometimes none too sympathetic. Self-regulation is being accorded a fair trial by the government. If it does not succeed, the task will undoubtedly be entrusted to the Securities and Exchange Commission.

As we have pointed out, unofficial quotations in the over-the-counter field have been furnished by the dealers who have a position in certain stocks and bonds. Several services have undertaken to compile these quotations and make them available to clients. However, there has never been for over-the-counter securities a quotation service quite comparable to that provided by the organized stock exchanges. The National Association of Securities Dealers supplies a comprehensive nationwide "news" service covering as many of the more than 100,000 items as are of sufficient interest.

The code of fair practice adopted by the association provides, in the form of penalties for more serious offenses, expulsion from the association and consequent withholding of the right to join with members in underwriting and selling groups. No expelled house, in buying from or selling to a member, can share any of the profits or commissions growing out of the transaction. The Securities and Exchange Commission has the power to regulate the dealings of nonmembers.

So far, unlike stock exchanges, the association has lacked the power to audit the books of members and to require financial statements from them. This power would constitute a valuable safeguard to the public.

Unlike an ordinary trade association, the National Association of Securities Dealers has semi-official standing and powers. Like any other trade organization, it seeks to further the interests of the business, but its chief purpose is the prescription and enforcement of fair practices.

The Services of the Organized Stock Market to Investors. As contrasted with unlisted stocks and bonds, those that are listed on an exchange enjoy what is known as a continuous market; that is, they may be bought or sold at any time the market is in operation. Naturally, the demand and supply provided by investors alone would not afford so continuous a market, especially in less active securities. Consequently, the transactions of speculators, including those who are selling short (i.e., selling securities they do not now own but expect to acquire later at a reduced price) provide an important addition to the available demand and supply and hence a more continuous market.

Continuity of the market benefits the investor in two important ways. First, it provides that highly desirable quality, marketability. Second, it furnishes him with an up-to-date and reasonably accurate appraisal of the value of his holdings, indicating upward or downward trends in the fortunes of the industries in question. Naturally, short-term swings in stock and bond prices are not a reliable guide to their real worth, but in spite of the considerable degree of artificiality present in such prices, they do, on the whole, represent a composite of the judgments of many laymen, professional traders, and "insiders" regarding the outlook for a given company, especially if the trend is a persistent one. They also reflect the hopes and fears of many people, particularly during periods of stress. This factor accounts for the wide swings in the level of prices. The market usually overemphasizes the favorable factors in periods of optimism and the unfavorable factors in periods of pessimism.

In the settlement of estates or the obtaining of credit from a bank on the security of listed stocks or bonds, the price quoted on the exchange furnishes an important guide to the intrinsic worth of the securities in question.

The organized security markets are a valuable adjunct to the investment banking houses in their work of providing capital for industries. Although security markets themselves do not originate new issues for corporations or distribute them to investors, they do enable holders of these issues to shift them to others. The existence of this marketability or shiftability not only adds to the attractiveness of a security to investors but also aids the corporation in its subsequent financings, provided, of course, that the market behavior of its existing issues has been good. Originating houses, before making their final recommendations to the prospective issuer on the type of security to be offered and the offering price, make a careful study of the market behavior of comparable securities issued by other companies. In addition, the general attitude of the public toward the particular company is reflected in the market prices of its own issues already outstanding. Provided, then, that a genuinely free and open market exists in these issues, the exchange has a part in directing the flow of capital into the most profitable channels.

The security market not only facilitates the acquisition of bonds and stocks as investments (i.e., with the stress being laid on security of principal and dependability of income), but it also provides facilities for speculating (i.e., buying or selling with profit making the major objective). The existence of speculative operations alongside of investment transactions not only broadens the market for the investor but also serves to keep price fluctuations within a more moderate range. Of course, in the field of speculation one must distinguish between the operations of the trained expert and those of the uninformed or misinformed novice. The novice, through his ignorance and excitability, usually accentuates price fluctuations rather than softening them. In great bull movements like that of the late 1920's, the rush of amateurs into the market counteracts any steadying influence which intelligent attempts to discount the future would otherwise exert. There then ensue a wild inflation of prices, a great outpouring of unjustifiable new security issues, and a dangerous expansion of bank credit for use in financing the speculative orgy.

Although organized exchanges have never been completely rid of manipulators of various kinds, on the whole they come close to offering a genuinely open market for securities. Every transaction is made in the open, and the details are broadcast to the world. If the price seems out of line, one way or the other, there will tend to be a rush of orders to take advantage of the fact, and this rush will automatically serve as a corrective.

The trend of prices in the security markets is of great significance as a forecaster of the investment outlook, for such prices tend to discount in sensitive fashion favorable or unfavorable turns in business. Although these prices are far from an infallible guide, the fact that the market is so alert to any developments likely to affect business and so adequately supplied with information, makes it one of the most useful single indicators of what lies ahead for business at any given time.

The Security Markets of the United States. Although there are security exchanges in twenty-four other American cities, the New York Stock Exchange and the New York Curb Exchange, in terms of number of shares sold, account for more than 90 per cent of the total volume of security exchange transactions in the United States. In the peak year of 1929, on the New York Stock Exchange alone securities with a money value of more than 103 billion dollars were bought and sold. On one day, October 29, 1929, 16,410,000 shares of stock changed hands for the total sum of about $1,460,000,000.

In recent years, some of the smaller exchanges have increased to a slight extent the proportion of transactions effected outside of New York. The difference in time between San Francisco or Los Angeles and New York, for example, has fostered the dual listing of stocks which are quite heavily held by investors in the Pacific Coast area. Furthermore, in an active market, the facilities of the far western exchanges are available to the whole country for several hours after the New York Stock Exchange has closed. Higher transfer taxes levied by New York have tended to divert trading to exchanges where lower rates prevail, but the two New York exchanges continue to attract the lion's share.

Since the New York Stock Exchange occupies so dominant a position, the discussion which follows will be based on its practices. The other exchanges follow the practices of the "big board" with only minor exceptions.

In the next chapter, we shall consider the protection given to customers of stock exchange houses by the government. Here, it will be appropriate to survey briefly the protective devices provided by the stock exchanges themselves.

One or more individual partners in stock exchange houses own memberships or "seats" on organized stock exchanges. The purchase of a seat does not of itself entitle the buyer to membership. He must be an American citizen of voting age, and he must receive the approval of a committee on admissions after an examination into his character and general fitness for membership. The cost of seats held by a member or members of a firm is usually borne by all the partners. The exchange has jurisdiction over the conduct of the nonmember partners as well as over those who actually hold the seats.

Member firms must adhere to the schedule of commissions prescribed by the exchange. They must submit all their advertisements to it for approval. Semi-annual financial statements are required, and examiners from the exchange audit members' books and check the securities and cash held for customers. Statements of member houses are always available. Employees representing a member firm must pass an examination conducted by the exchange and must be compensated with a basic fixed salary in order to lessen the temptation to persuade customers to overtrade.

Before a stock or bond is officially "listed" for trading, it must meet the requirements set up by the exchange even though it has been approved for listing by the Securities and Exchange Commission. Although an exchange cannot undertake to guarantee to an investor that corporations whose securities are listed with it will always make a profit or even continue to be solvent, it does lay down certain standards which must be met and rules which must be observed by corporations whose securities it permits to be bought and sold. Admission to trading does vouchsafe to the public that the security in question is that of an enterprise in actual operation and solvent as of the date of listing and that in its issuance the company complied with the provisions of the law and with the conditions prescribed by the directors or stockholders for the issue of such securities.

The exchange's requirement that the corporation must maintain a transfer agent and a registrar through whose hands all changes in ownership must pass protects investors against excessive issues or fraudulent transfers. A further commendable requirement is that corporations whose shares and bonds are listed must keep the owners informed regarding their condition and must report all actions which affect the owner's interest. Copies of the listing statement itself, which are available to the public, often provide investors with information not otherwise available.

Not only must the exchange be satisfied regarding the character and status of the company, but assurance must also be given that a sufficient supply of each of its listed securities is in the hands of the general public to afford a continuous market. In other words, there would be little point in listing an issue of bonds owned exclusively by an insurance company or shares of stock largely in the hands of a family or two, who had no intention of offering them to the public. If, at any time after a security has been listed, it appears that there no longer exists a sufficient "floating supply," the exchange may order it delisted. When only a small number of bonds or shares is available for purchase by the public, the issue tends to become the easy prey of manipulators.

The Commission Broker and His Service to Investors. Although there are several types of brokers on the floor of an exchange, the commission broker is the only one who deals directly with the public, receiving and executing its orders to buy and sell securities on the exchange. The firm to which he belongs maintains offices in financial districts of cities, in hotels, on shipboard, or other places where customers are likely to exist in sufficient numbers. Usually, a so-called "board" is provided upon which quotations received on "tickers" connected by wire with the stock exchanges are recorded within a remarkably short time after the transaction occurs on the floor of the exchange. It is well to repeat the statement made earlier in this chapter that brokers act merely as agents and not as dealers.

It is not in the province of a treatise on investments to enter into the intricacies of margin trading and short selling. They are speculative operations. However, they do react to the benefit of the bona fide investor in several ways. First, speculation kept within fairly narrow bounds tends to lessen the extent of fluctuations in prices. However, experience in the speculative orgy of 1928–1929 and on other occasions has shown that heavy speculation tends to accentuate these swings. Second, speculative operations so increase the volume of transactions as to make a broader and more continuous market for shares bought and sold by investors. If, however, speculation is so rampant as to interfere with the stability of prices, an investor's interests would be better served by greater stability, even at the cost of a narrower market. Third, that segment of speculators which bases its operations on a thorough knowledge both of the affairs of the corporations in whose stocks it trades and of the complex of external factors which determine the trend of stock prices performs a useful service to investors to the extent that its skillful interpretation of what the prices of securities should be tends to send actual market prices in that direction.

On the other hand, a large army of amateur margin traders can do much to drive prices far from levels which represent intrinsic worth.

It is quite obvious, then, that the purely speculative purchase and sale of stocks is of benefit to bona fide investors only so far as it is moderate in volume and intelligently carried on.

The Bond Market. So-called "stock" exchanges are in reality "stock and bond" exchanges. It is true, however, that the two New York exchanges account for all but a small fraction of the bond transactions consummated through organized exchanges and that several of the small regional exchanges confine trading to stocks.

The great bulk of bonds outstanding is unlisted, and even the amount of listed issues sold "off the board" greatly exceeds that handled by the exchanges. Not only is trading in listed bonds much less active than that in stocks, but the fluctuations in the volume of trading are also much smaller.

Except for income and adjustment bonds, and those in default—all of which are quoted "flat"—bonds are quoted at a given price "plus accrued interest"; that is, the buyer must compensate the seller for the amount of interest which has accumulated since the last payment was made.

Since the bond market is less active than the stock market, there are more instances of a bid or an offer failing to elicit an immediate response. At such times a memorandum is posted in the trading room in anticipation of the early consummation of a deal.

In spite of the fact that, normally, bond transactions effected through exchanges are greatly overshadowed by over-the-counter sales, the bond department of an exchange performs a valuable service to investors. In the first place, a sale made on the exchange establishes a definite price and one which is given wide publicity. Second, the exchange provides a market place which at times continues to function when over-the-counter trading has tended to "bog down."[1] Third, it affords to the small buyer, in particular, an easy means of meeting his limited requirements.

In order to stimulate greater use of the trading facilities which it affords, the New York Stock Exchange enacted the so-called "fourteen-bond" rule which requires members to fill an order for fewer than fifteen bonds through the exchange unless a better price can be obtained elsewhere.

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PROJECTS

1. Compare three recent important corporate bond issues with respect to their size, the price received by the corporation, and the price and yield to investors. Try to account for differences.

2. Submit a brief comparison between the contents of a listing application and those of a prospectus furnished to investors in connection with the distribution of the same issue.

3. Obtain figures showing how (*a*) the volume of over-the-counter transactions in a given year compared with the total for the organized exchanges; (*b*) the volume of new securities privately placed compared with the amount sold through regular investment banking channels. See the *Annual Report* of the Securities and Exchange Commission and its monthly *Statistical Bulletin.*

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[1] However, it may be the exchange and not the open market that "bogs down." Issuing houses will usually succeed in maintaining some kind of a market off the board.

CHAPTER 5 The Impact of Government on the Investment Process

Growing Importance of Political Forces. The increasing impact of governmental activities on economic life has been nowhere more marked than in investment. Although political developments and the actions that follow upon them affect the prices of securities and the return upon securities in many ways, large and small, it will be convenient in this chapter to confine our attention to those principal areas of contact with which the investor must reckon in determining his general policies. We shall find that even these major governmental influences are diverse in nature, operating to reduce or eliminate certain investment hazards and to add or increase others. They include, on the one hand, efforts to protect the investor from exploitation and attempts to stabilize economic fluctuations; and, on the other hand, they include the burden of tax levies and the risk of change in the general economic and social structure.

The part played by the government in attempting to reduce one of the investor's important risks, that of cyclical fluctuations, will be considered in the chapters dealing with the basic risks of investment. The relation of taxation to investment has become so vital as to warrant the devotion of a separate chapter[1] to a discussion of this aspect of the impact of government on investment.

It is obvious, of course, that relatively few of the political forces seriously influencing investment do so as a primary aim, or even intentionally. The effect on investment problems is ordinarily wholly incidental to other objectives. Even when governmental action is specifically designed to touch the investor, it is often seeking to employ investment as a tool for the accomplishment of broader aims. This explains the seeming paradox in which we sometimes find governmental agencies protecting the investor with one hand and attacking him with the other.

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[1] Chapter 11.

Protection of Investors by Governmental Agencies. The steadily increasing number of investors in securities has been at the root of a growing effort by governmental bodies to provide investors with greater protection against fraud and certain similar hazards. At a time when the problems of investment have been increasing in complexity through the multiplication of security issues and the recurrence of sharp economic fluctuations, the ownership of securities has been extended more and more widely into the hands of small and financially unsophisticated investors. Not only have such investors proved vulnerable to fraudulent promotions, but also the separation of ownership from effective control of legitimate enterprises that has developed has weakened the position of the security holder and has led to numerous unsavory instances of exploitation at his expense. Demand for protection by the government has been a natural consequence, especially during periods of depression, when losses from many causes have been heavy.

Such demands, as we know, are not solely of recent origin. They date back to the South Sea Bubble and other great disillusionments of the past. An early consequence was the enactment of restrictive legislation, notably the Bubble Act, intended to prevent abuse of the corporate form of organization.

Modern legislation designed to protect investors in securities had its genesis in the Companies Act of 1844 in England, which, although primarily a general incorporation law, required the registration of prospectuses of security issues. The committee whose recommendations formed the basis of this act reported that "periodic accounts, if honestly made and fairly audited, cannot fail to excite attention to the real state of a concern; and by means of improved remedies, parties to mismanagement may be made more amenable for acts of fraud," thus advancing the principle of disclosure, namely, that the investor should be given the truth concerning securities offered to him.

Disclosure of certain information in prospectuses for the sale of shares was required in the revised Companies Act of 1867, and additional disclosure of material facts was provided for in revisions enacted in 1900 and in 1929. British law, despite debate on the merits of a requirement of "full" disclosure, in the sense of truthful and complete revelation of all material facts, has consistently chosen to limit itself more practically to insistence on only the disclosure of specific pertinent facts. The 1929 revision provides that each prospectus be signed by all the promoters and directors of the company, who are held personally responsible for all statements or representations it may contain.

Similar principles of control have been accepted for many years in legislation adopted by France, Belgium, Germany, the British Dominions, and other countries.

Limitations on private activity in the investment sphere were slow to develop in the United States. For a long time, they were confined almost entirely to restrictions on investments permitted those in a fiduciary position, such as savings banks and trustees. Protection given the ordinary investor was limited mainly to prohibition of fraudulent use of the mails and to the regulations governing corporate organization under the general incorporation laws of the states, some of which provided little restraint. Gradual progress was made in tightening and refining trading practices and listing requirements by the New York Stock Exchange, in large part in response to pressure of public opinion (as at the time of the Hughes investigation in 1907), but the average investor was for all practical purposes, especially with respect to new issues, left until comparatively recent years almost entirely to the protection afforded by his own wits and personal sources of information, which generally meant that he was seriously handicapped.

Beginning in Kansas in 1911, a series of so-called "blue sky" laws[2] was adopted by the various state legislatures for the general purpose of preventing the fraudulent sale of securities. Development of these statutes was slow at first, for numerous amendments and court tests were necessary, but action came more rapidly as the problems posed by the wide distribution of bonds during World War I to people who had never owned securities before were recognized. As early as December, 1918, it was pointed out that

> At no time has the obligation been so definitely placed upon the Government to protect its public from financial exploitations by reckless or unscrupulous promoters. The field has been greatly enlarged by the wide distribution of Liberty bonds, and the purveyor of stocks and bonds is no longer put to the necessity of seeking out a select list of prospective purchasers with money to invest. He now has the entire American public, and the transaction becomes one of persuasion to trade a Government bond bearing a low rate of interest for stocks or bonds baited with promise of high rate of return and prospect of sudden riches.[3]

The problem received increasing attention as investors grew in number and security issues increased in volume. By 1923, only two states lacked laws designed to regulate the sale of securities, and such laws now exist in some form in every state except Nevada.

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[2] Known as blue sky laws from an early court decision which remarked on "speculative schemes that have no more basis than so many feet of blue sky." Hall *v.* Geiger-Jones, 242 U.S. 539.

[3] *Capital Issues Committee Report to Congress,* December 2, 1918, Public Document 1485, 65th Congress.

Blue sky legislation has varied greatly in the extent of protection it has attempted, in the skill and thoroughness with which it has been drawn, and in the zeal with which it has been applied, but in practice it has usually afforded only a minor degree of protection, except against outright fraud. The continued prosperity of the period when much of it was adopted was not a good background for effective regulation, and not enough of the laws were really strict in their requirements or equipped with adequate "teeth." It was proposed to eliminate some of the variations between states by the drafting of a uniform blue sky law, known as the Uniform Sale of Securities Act, which was completed and approved by the National Conference of Commissioners on Uniform State Laws in 1929 and 1930, but, though many state laws approximate this act, to date only a minority of the states have actually adopted it, and decided variations still exist.

Other efforts at regulation by the states which have affected investors, though not primarily designed for their protection, include restrictions placed on the debt-contracting power and financial management of municipalities and the control exercised over financing of public utilities by state public utility commissions. Railroad financing was placed by the Transportation Act of 1920 under the control of the Interstate Commerce Commission, and the flotation of foreign loans has also been subject to federal approval. Securities falling within these several classes subject to special regulation are generally exempted under the blue sky laws.

Attitudes toward existing public regulation of investment were altered greatly, of course, by the collapse in securities following 1929 and by the disclosures of widespread malpractice and exploitation which were subsequently made. The conviction spread that federal regulation offered better promise of effective protection for the investor than could be hoped for through state laws alone, and the consequence was the Securities Act of 1933, amended and extended by the Securities Exchange Act of 1934 and subsequent minor acts. Between them, these acts undertook regulation which extended well beyond that of many of the states, although in others the securities acts of the state are still more effective than the federal Securities Act so far as the sale of securities within the state is concerned. The federal legislation attacked the problem along two principal fronts: (1) the federal regulation of new interstate security issues, with provision for a prospectus disclosing specified material facts to the potential investor; (2) the regulation of operations in existing securities on stock exchanges and through dealers, with provision that all companies whose securities are listed on registered exchanges file registration statements disclosing certain material facts.

Regulation of New Offerings. The state blue sky laws are most nearly uniform in provisions for the licensing of security dealers. In some cases the simple power to revoke a dealer's license is relied on to prevent questionable offerings of securities. Most states, however, provide also for licensing of individual security issues before they may be offered to the public. Permits of sale are granted by state officials subject to certain tests, which the securities in question must pass. In some states it is the commissioner's duty to examine the plan, including the merits of the securities to be offered, and to authorize the sale of such securities only if he is satisfied that such sale is fair, just, and equitable. In contrast, the federal securities acts are disclosure acts; if the information set forth in the registration statement and prospectus required to be filed under the act is in the form required by the Securities and Exchange Commission, no objections can be made to the sale of such securities regardless of the merits of the issue.

Exemption from application of the acts is granted to certain classes of securities and certain types of transactions in order to reduce the burden on channels of business already regulated or ordinarily free from speculative and fraudulent operations. Important groups of securities usually exempted include issues of the United States Government, states, cities, and other political subdivisions; issues of friendly foreign governments, of public utility companies supervised by the state or federal government, of banks, of building and loan associations organized under laws of the state; and, frequently, securities listed on approved stock exchanges or qualified as legal investments for savings banks or trust funds. Transactions exempted include, for example, judicial sales, bona fide isolated transactions by individuals, and purchases for investment, and not for resale, by banks, investment, and insurance companies.

Wide variation exists in the extent of examination undertaken preliminary to qualification of a new offering. Mere notification and filing of sales literature by a licensed dealer is sufficient in some states, whereas other states require thorough examination in advance. Many states classify securities, some classes requiring only notification of the securities commissioner in order to effect registration, and other classes requiring formal application and examination. This method is that provided in the Uniform Sale of Securities Act. In the words of the drafting committee, its purpose is "to facilitate the marketing of securities of unquestionable merit without burdensome formalities while at the same time protecting the public against fraud."

A growing group of states goes well beyond mere protection against fraud and undertakes to regulate the financial bargain made between issuer and purchaser through limitations on charges that may be made, commissions that may be paid, and other vital provisions. Much of this regulation depends on the securities commissioner or other responsible state official, who is often given wide discretionary powers.

In a few states, of which New York is the most important, fraud acts are substituted for regulatory blue sky laws. These acts do not require permission from the state for issuance of securities[4] but provide instead for investigation and prosecution through criminal action of concerns suspected of issuing fraudulent securities. Injunctions may be obtained by the state to prevent the distribution of such securities.

The general effect of state blue sky laws to date has unquestionably been beneficial to the investor, even though the protection afforded has in some ways left much to be desired. The trend has been toward more adequate legislation and stricter interpretation of it. Principal criticism of the laws has been aimed at the great variations existing among the policies of different states; the difficulties in the way of regulating interstate security operations; the problems involved in developing a consistent regulatory program under officials of uncertain tenure; the possibilities of biased treatment or of evasion of the regulations through political pressure; and the excessively broad exemptions of securities from application of the act. Inability to control the activities of a promoter operating from a base outside the state has in the past probably been the most difficult problem of the regulatory officials.

An important problem of another sort has been that licensing of a security by the state may tend to convey to the prospective purchaser an unwarranted suggestion of approval or of recommendation by the state. Thus, in an address in 1926 Albert Ottinger, Attorney-General of New York, said that New York had not created the licensing system "because we believe in this state the volume of business is so vast that it would be absolutely impossible to pass upon the merits of particular securities, and that being so, it would be most unfortunate for investors to be seized by the notion that there was a state guaranty or a state sanction or a state approval of the particular security which is being sold to the people."[5] Waiving all attempts at licensing and relying wholly on fraud acts, on the other hand, is open to the criticism that, under this method, the door may not be locked until after the horse is stolen.

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[4] New York requires dealers to file certain statements and notices.

[5] Address before the annual convention of the National Association of Security Commissioners, New York.

The Securities Act of 1933. Many of the shortcomings in the operation of state blue sky laws, especially their inability to control interstate transactions, are subject to remedy through federal legislation. More and more, the security markets of the United States have become national in character, and the problem of regulation a national problem. Rather than a mere measure supplementary to state laws, the federal Securities Act of 1933 is now the basic securities law of the land, and the state acts are properly considered as supplementary to it.

The general design of the Securities Act of 1933, which deals primarily with new offerings, was adapted from the British Companies Act, though a considerable superstructure of prohibitions and of additional requirements was added. Many provisions were taken from the Taylor bill, introduced unsuccessfully in Congress in 1919, which had embodied recommendations advanced by the Capital Issues Committee, an emergency body appointed to control the capital markets during World War I.

The purposes of the present act were well expressed in the special message of President Roosevelt in March, 1933, requesting legislation on the subject, in which he stated:

> I recommend to the Congress legislation for Federal supervision of traffic in investment securities in interstate commerce.
>
> In spite of many State statutes the public in the past has sustained severe losses through practices neither ethical nor honest on the part of many persons and corporations selling securities.
>
> Of course, the Federal Government cannot and should not take any action which might be construed as approving or guaranteeing that newly issued securities are sound in the sense that their value will be maintained or that the properties which they represent will earn profit.
>
> There is, however, an obligation upon us to insist that every issue of new securities to be sold in interstate commerce shall be accompanied by full publicity and information, and that no essentially important element attending the issue shall be concealed from the buying public.
>
> This proposal adds to the ancient rule of caveat emptor, the further doctrine "let the seller also beware." It puts the burden of telling the whole truth on the seller. It should give impetus to honest dealing in securities and thereby bring back public confidence.
>
> The purpose of the legislation I suggest is to protect the public with the least possible interference to honest business.
>
> This is but one step in our broad purpose of protecting investors and depositors.

The importance to investors of the provisions for federal regulation of security issues under the Securities Act of 1933, as amended under Title II of the Securities Exchange Act of 1934 and subsequently in order to modify certain onerous requirements, merits a brief summary of their content. There is provided:

(1) All new security offerings, subject to certain exemptions, must be registered with the federal Securities and Exchange Commission [6] prior to the date of actual offerings. Exemptions, in addition to purely intrastate offerings which under the provisions of the act are narrowly restricted, include securities of the United States Government; of states or their political subdivisions; of corporations controlled or supervised by public authorities; of railroads, banks, building and loan associations, farmers' cooperative associations, nonprofit organizations, and receivers. Insurance and endowment policies and annuities are also exempted, as are notes, drafts, bills, and acceptances with a maturity not exceeding 9 months. Securities of foreign governments are not exempt. The Commission has adopted a series of exempting regulations in accordance with statutory authorization to make such exemptions. The more important of these is Regulation A which provides a simple method of securing exemption from registration with respect to certain issues not exceeding $300,000.[7] Exchanges for existing securities are exempt when no commission is paid or when approval of the exchange has been given by a court or governmental authority.[8] Transactions exempted include those by persons other than issuers, underwriters, and dealers; those not involving any public offering; and brokers' transactions executed upon customers' orders, but not the solicitation of such orders.

(2) Registration applications must include elaborate and comprehensive information about a multitude of specific points, designed to provide a clear picture of the nature of the company's operations, its ownership and control, and its financial condition and recent earnings record; the specific purposes of the new offering; a list of those profiting directly or indirectly from the offering and in what amounts; details concerning management contracts and copies of the underwriting agreement, opinion of counsel regarding the issue's legality, the articles of incorporation, the indenture if there is one, and other essential agreements or contracts. Financial statements must be certified by independent accountants, and the registrant must agree to furnish such supplementary and periodic financial reports as may be prescribed by the Commission. The registration statement must be signed by a majority of the board of directors of the issuer.

An interval of 20 days, called "the cooling period" in investment banking circles, is provided between date of filing of the registration statement and the date it becomes effective. However, the Commission is now permitted to shorten this period, if it can be done without lessening the protection afforded to investors.

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[6] A five-man commission appointed by the President. Under the 1933 act, the same functions were handled by the Federal Trade Commission.

[7] The experience of state commissions has been adverse to the theory of such exemptions. The investor may lose quite as readily in a fraudulent small offering as in a large one. There is much to be said, however, for methods of regulation which will minimize the expenses involved in registration of small offerings.

[8] Exchanges of new securities for existing securities, particularly under reorganizations, have been a fertile source of loss to investors in the past.

In this interval, it is not lawful to offer the security for sale through the mail or in interstate commerce.

It was the thought of the authors of the act that such an interval would enable both dealers and investors to familiarize themselves with the security in question, but, until the issuers are permitted to proceed with the sale and the distribution of the prospectus, there is little opportunity to gain such familiarity.

In order to remedy this difficulty, banking houses were authorized to summarize important data in a "red herring" prospectus, which gets its name from the requirement that on each page there must appear in red type a statement that it does not contain an offer to sell the security and that this offer cannot be made until after the effective date of registration.

(3) The real prospectus containing the information intended to be presented to the public must accompany the registration statement. Though necessarily briefer, this prospectus must contain all the essential information required in the registration statement. The Commission has the power to require that additional information be shown in the prospectus or to permit the omission of certain information at its discretion. A copy of the prospectus must be sent or given to customers prior to or at the same time as solicitation of purchase.

(4) Before, or even after, the registration statement becomes effective, the Commission may request additional information, schedule public or private examinations to determine the accuracy and adequacy of information supplied, or issue a "stop order." If a stop order is issued, the security may not be offered until the deficiency has been corrected to the satisfaction of the Commission. Penalty of fine or imprisonment is provided for any person willfully violating provisions of the act or regulations promulgated by the Commission, or for any person who files a registration statement in which he willfully "makes any untrue statement of a material fact or omits to state any material fact required to be stated therein or necessary to make the statements therein not misleading."

(5) Extensive civil liabilities are imposed after a registration becomes effective, if there has been an untrue statement or omission, as defined above, in either registration statement or prospectus. In this event, bona fide purchasers of the security may, on suit within 3 years and within 1 year from discovery of the misstatement or omission, recover the loss they have suffered to the extent that the loss may not be proved to have been the consequence of other causes than the misstatement or omission. Joint and several liability is imposed on every person who signed the registration statement, every director or partner of the issuer, every person who has, with his consent, acted as an expert and given authority to statements contained in the registration statement, and every underwriter with respect to the security. Liability may be avoided, except by the issuer, if a person proves he had, after reasonable investigation, reasonable ground to believe and did believe that the statements in question were true

and adequate. The standard of reasonableness, originally stated as that of "a person occupying a fiduciary relationship," was amended so that it is "that required of a prudent man in the management of his own property."

Protection Afforded through Regulation of New Offerings. Although state and federal regulation provides the purchaser of a new offering an important measure of protection against fraud, the practical investor must remain cognizant of the magnitude of the other major risks we have been discussing, against which he has no such active agency of defense. Even with respect to fraud, the elaborate prospectuses provided and the outcry of some opponents against the stringencies of regulation should not blind an investor to the limited nature of the protection actually received. No workable legislation can be a complete substitute for common sense and judgment. Outright swindles have been made extremely difficult, at least in most states and in interstate dealings, but it is still quite possible, for example, for poorly protected bonds or greatly overpriced shares in legitimate enterprises to be sold to the public without any violation of the laws.

The Securities Act attempts only (1) to force the issuer to disclose the essential facts of the issue, (2) to prescribe a method for such disclosure and for conveyance of the information to prospective purchasers, and (3) to provide an adequate penalty for noncompliance or misrepresentations. "The public should thoroughly understand that the Commission is not authorized to pass in any sense upon the value or soundness of any security. Its sole function is to see that full and accurate information as to the security is made available to purchasers and the public, and that no fraud is practiced in connection with the sale of the security. Speculative securities may still be offered and the public is as free to buy them as ever."[9]

Furthermore, the exemptions provided in both state and federal acts cover important groups of securities. Experience suggests that the large field of state and municipal financing, especially, could well be included among those in which thorough disclosure of material facts is required.

There is no justification for belittling the value to the investor of the extensive information provided under the Securities Act. Ability to obtain the information filed has torn the veil from many formerly obscure corporate operations. The accounting standards enforced have been particularly helpful. The fact that information of value provided in the registration statement may not be included in the prospectus, and thus may be obtainable only at some expense and inconvenience, is only a minor handicap to the analyst. More important is the suspicion that even the most complete disclosure of facts may not lead to sound judgment on the part of many investors.

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[9] *Release No. 1,* Federal Trade Commission, May 27, 1933.

Although full disclosure was assuredly not the common practice in the past, case after case may be cited in which disclosure of damaging material facts was truthfully made in a prospectus with apparently little deterrent effect on sale of the issue. Whether this result was due to inability of the investor to comprehend the significance of the facts, to failure to read the prospectus, or simply to high-pressure salesmanship is immaterial; these possibilities still exist. The investor who has been vulnerable for reasons of this nature is, as a matter of fact, just the person who will be led to believe that a security which has been registered with the Securities and Exchange Commission has been approved by the Commission, despite the plainest statement on the cover of the prospectus to the contrary.[10]

The Securities Act does assure, however, that the person capable of reasoning from the facts will obtain a sober and relatively complete statement of them. The roseate "sales punch" formerly freely woven into prospectuses has been almost entirely eliminated, though, unfortunately, there is ground for the belief that as the prospectus becomes less alluring it may less frequently be read by the investor. Complaints are common that prospectuses should be simplified, that they are too long and too difficult to read.

There is a strong but understandable tendency of security salesmen to protect themselves legally, through the ritual of handing a prospectus to their customer, and then to proceed to make the sale on the basis of simpler and more appealing supplementary sales literature or merely through the application of salesman's rhetoric. Liability on supplementary literature not involving direct misstatements is avoided through a broad "hedge clause" and through provision of a prospectus at the same time.

The Securities and Exchange Commission in practice, of course, is able to exercise somewhat greater control over registration statements and prospectuses than might appear on the surface, through the medium of wide interpretation of some provisions of the law and through the power to delay registration for long periods by dispute over technicalities. The latter point is of particular importance to issuers who are selling a certain security continuously, for they must then amend their registration statements frequently in order to provide up-to-date information. The Commission may defer acceptance of amendments indefinitely. To the extent that the Commission is able to employ such coercive powers wisely and impartially, the investor may benefit from a degree of qualitative supervision in addition to the disclosure of facts directly provided.

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[10] Under present regulations, the following statements are required to appear in large type on the first page of every prospectus: "These securities have not been approved or disapproved by the Securities and Exchange Commission which does not pass on the merits of any registered securities. —— Company has registered the securities by filing certain information with the Commission. It is a criminal offense to represent that the Commission has approved these securities or has made any finding that the statements in this prospectus or in the registration statement are correct."

A further extension of powers giving the Commission direct control over certain qualitative features was contained in the Trust Indenture Act of 1939, which declares that the registration of securities issued under a trust indenture shall not become effective unless the indenture conforms to certain specific requirements designed for the protection and enforcement of the rights of the investors.

Major objections to the federal Securities Act, other than fears that investors would be misled into believing registration of an issue was tantamount to approval by the government, have had to do with its possible adverse effect on the volume of new financing. The heavy liabilities imposed on directors and underwriters, the necessity to disclose internal affairs, and the costs involved in registration have been cited as influences that operate to restrict some essential types of financing, especially financing of small companies and ventures involving large risks. Despite prima facie evidence in the form of a low level of new financing for a number of years, these objections have probably been overemphasized. Similar liabilities of directors and promoters have not in the past prevented active new financing in England. Moreover, it is hardly desirable that capital for especially risky ventures should be supplied by those unaware of the risks.

The Securities Exchange Act of 1934. Federal regulation of new offerings left untouched to a great extent the problem of the vast total of securities already existing and outstanding in the hands of the public. Intermittent efforts had been made by the security exchanges, notably the New York Stock Exchange, to improve trading practices and to increase the information required on listing applications and the frequency and adequacy of corporate reports, but satisfactory factual information remained unavailable on many of these securities, and manipulative operations on and off the stock exchanges continued to place extra hazards in the path of the inexperienced investor. Because of the tremendous growth that had occurred in the number of small investors and the increasing degree to which the nation's resources had been mobilized in the form of securities, a stable and smoothly functioning market was believed to be increasingly essential to the stability of the general economy.

In consequence, regulation of stock exchange and over-the-counter security transactions and registration of listed securities was undertaken in the Securities Exchange Act of 1934, amended in 1936 and 1938. Under Title I this act provided, subject to certain exemptions and to penalties for violation, for:

(1) Registration of security exchanges, involving the furnishing of certain information and agreement to abide by certain standards of practice, including restrictions on borrowing and prohibitions of various forms of manipulation.

(2) Registration of corporations listing their securities on these exchanges, in a fashion similar to registrations under the Securities Act.[11] Provision was also made for periodic financial reports, standard rules for proxy solicitation, reports of salaries and other compensation of officers and directors, and monthly reports of changes, if any, in the holdings of the officers, directors, and principal stockholders.

(3) Registration of brokers and dealers in over-the-counter securities, with the exception of those whose business is exclusively intrastate. Amendment in 1938 (Maloney Act) gave authority for the organization by brokers and dealers, subject to the approval of the Securities and Exchange Commission, of "national securities associations" designed to provide for self-regulation of the over-the-counter security business. Members of such associations would agree to certain standards of fair practice and might provide that no member could deal with any nonmember broker or dealer, except at the same prices and terms as are offered the general public. The effect of the latter provision, as incorporated in the rules of the National Association of Security Dealers, Incorporated,[12] formally launched in 1939, is virtually to compel over-the-counter brokers and dealers to become members.

The results obtained from the Securities Exchange Act have, in general, been looked on with favor by most parties concerned. Manipulative operations have been materially reduced, information available on listed securities considerably enlarged, corporate reports improved through more uniform accounting practices, and exorbitant "insider" compensation brought to light. As one offset, there has been a shrinkage in speculative activity that has contributed in part, at least, to extremely "thin" and unstable markets for most securities.

The Bargaining Position of the Investor. The divorcement of ownership from management of business that has developed as corporations have grown in size and security holdings have become ever more widely distributed has weakened materially the "bargaining position" of the security holder. One purpose of federal securities legislation has been to lessen this inequality through insistence on disclosure of certain internal affairs of the corporation, of the management's salaries, bonuses, and other compensation, and of the extent of the management's interest in the securities of the company, including month-to-month changes. Pressure for frequent and informative corporate reports and provision of stringent requirements for solicitation of proxies have had the primary aim of helping the stockholders to exercise a degree of intelligent control.

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[11] Some exchanges, but not the New York Stock Exchange, admit to trading privileges securities which are not fully "listed" and hence not registered.

[12] For a more complete discussion of this organization see Chapter 4.

There has also been an effort through publicity and the imposition of liabilities to further a fiduciary standard of management for corporations. The position of an officer or director of a typical large corporation is likened, with much reason, to that of a trustee.[13] At the present stage of development, however, the investor will do well to preserve a critical attitude toward management and to familiarize himself with his rights.

The bargaining position of the owner of fixed obligations has been impaired more seriously in recent years. The interests of creditors are normally in conflict with those of both controlling groups, management and stockholders, and they frequently differ from the interests of the underwriters of the obligations, who are often in effect merely agents of the issuer. The owner of securities of this type has also suffered from his inferior size and lack of organization and from trends adverse to creditors generally.

Evidence of a gradual shifting of debtor-creditor relationships may be traced for a long period, but the trend was accelerated considerably by the developments of the 1930's, under the pressure of the heavy debt that had been built up during the preceding years of prosperity.[14] Legislative measures which were adopted to provide relief for debtors from this burden necessarily were distasteful to creditors in many cases. Among such measures were the devaluation of the dollar and the concurrent abrogation of the "gold clause" which had been designed specifically to protect investors against currency depreciation.

Particularly significant were the widespread declarations during the 1930's of moratoria postponing the payment of interest and principal on farm and home mortgages. With farms, especially, the difficulties in the way of foreclosure proceedings became so great that a general distrust of the medium of farm mortgages has since been shown by important classes of investors. At the time when the protective mechanism of foreclosure is most needed by the creditor, it is then most likely to be suspended owing to declaration of an "emergency." In the corporate field, also, the protection formerly believed to be supplied the investor through mortgage agreements has been somewhat discredited by experience.

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[13] See F. I. Shaffner, *The Problem of Investment*, John Wiley & Sons, New York, 1936, Chapter XVIII.

[14] See Shaffner, *op. cit.*, Chapters VIII to XIII.

The moratoria and the compromises in farm and home mortgage debts in the United States in recent years deserve attention in passing for what they may suggest as to the possible outcome of growth of municipal and state debts to dangerous heights. That such obligations theoretically rest on unlimited taxing power may be small protection in the event taxpayers decide that the burden has become too great. Experience with defaulting irrigation districts, where the tax covenant was clear but could not in practice be enforced, is an illustration of this point. Refunding operations carried on in Australia and Great Britain in the 1930's illustrate a formidable type of patriotic appeal for reduction of coupon rates in times of strain.

The problems of the investor so unfortunate as to be involved in receivership or reorganization proceedings are a common subject of complaint. Not only may the security holder be at the mercy of professional organizers of protective committees, and of protective committees dominated by interests close to the management, but also he often faces a long and expensive period of delay and of bickering between opposing groups that may sorely try his patience. An attempt to speed up such proceedings by forcing minorities to go along with the will of majority groups, subject to confirmation of the reorganization plan by the court, is now incorporated into Chapter X (formerly 77B) of the Bankruptcy Act. Through this provision, the rights formerly possessed, for good or evil, by minority holders of securities have been materially curtailed.

Additional aid in procuring equitable treatment for security holders in reorganizations was afforded in the 1938 amendments to the Bankruptcy Act, in which it was provided that the Securities and Exchange Commission might (1) appear as a party to the proceedings on the request or with the approval of the judge and (2) submit reports on reorganization plans referred to it by the courts. Practically, this means that the Commission enters reorganization proceedings when there is a substantial amount of securities outstanding with the public, either at the invitation of the presiding judge or at its own request. The Commission analyzes proposed plans, makes suggestions of its own, and endeavors to advise the judge as to possible solutions that are both workable and fair to the various classes of security holders.

Other changes in the laws and practices governing receivership and reorganization proceedings have in recent years been aimed at limiting the expenses involved and at lessening the influence exerted by the old management. Generally speaking, the procedure now followed in equity receiverships and statutory reorganizations aimed at continuation of the enterprise in some form is for the court to appoint a disinterested trustee with the duty of preparing a fair plan of reorganization as well as of assuming control of the company's operations. This trustee, incidentally, is to decide whether any actionable claims exist against the old management. Other plans of reorganization in addition to that of the trustee may be submitted, but the activities and expenses of protective committees are scrutinized by the court.

The Interstate Commerce Commission, in the case of the railroads, holds hearings on the various plans submitted, decrees one to be fair, and submits it to the claimants for approval. The court decides on the fairness of plans for other corporations but is advised by the Securities and Exchange Commission. After submission of the plan to the claimants, acceptance by two-thirds of each class of the creditors and a majority of the stockholders (if they are held to possess an "equity") is sufficient for the court to declare the plan binding on all security holders, thus doing away with the former delay with recalcitrant minorities without the necessity of foreclosure.

A logical first line of defense for investors, of course, lies in the general incorporation laws of the various states, where the powers and privileges that may be granted corporations are specified and the rights and liabilities applicable to various classes of securities are set forth. Regardless of the fact that the typical investor will never have read the articles of incorporation of a corporation in which he is interested, or the indenture or other provisions governing the specific security he owns, enforcement of wise standards in incorporation laws is at least a step toward his protection. Unfortunately, to date, progress in this respect has been partly nullified by certain states which offer favorable terms of incorporation to promoters of corporations simply in order to obtain larger shares of a lucrative business. This laxity on the part of a few states, together with a lack of uniformity among others, has led some to argue the advantages of a single federal incorporation law.

In discussing the rights of the various classes of security holders, we have already stressed the point that the primary reliance of the bondholder is on the general earning power of the company rather than on his specific mortgage protection. At the same time, we have pointed out that in the event of bankruptcy mortgage protection has a real value, provided that the property pledged is profitable or truly essential. Recent reorganization plans and court decisions have moved away from the old practice of providing "some claim, however remote," for everyone and have given more weight to mortgage and contractual priorities. Some degree of compromise is still necessary if there is not to be excessive and costly delay, and the court is also likely to give weight to the rights of wage earners and consumers as well as to those of the creditors.

In the Los Angeles Lumber Products case,[15] in 1939, the United States Supreme Court reaffirmed emphatically the doctrine that stockholders should be eliminated from reorganizations in which there is not sufficient property to satisfy the obligation to creditors. The court pointed out that the reorganization plan must be "fair and equitable" as well as assented to by most of the security holders. It stated that "in this case the fact that 92.81 per cent in amount of the bonds, 99.75 per cent of Class A stock, and 90 per cent of the Class B stock have approved the plan is as immaterial on the basic issue of its fairness as is the fact that the petitioners own only $18,500 face amount of a large bond issue."

A pertinent question for the security holder to ask in inspecting a reorganization plan is, "Are the causes of failure being remedied, or is it merely a matter of time until the new capitalization will collapse?" The Securities and Exchange Commission in its advisory opinions has stressed especially the necessity of reducing charges to the point where the reorganized company has a reasonable expectation of being able to meet them. An effort has also been made in railroad reorganization plans to place substantial amounts of bonds on a contingent basis whereby interest is paid only if earned and after certain liberal special charges designed to strengthen the corporation have been met. Such so-called "income bonds" obviously should be scrutinized with great care.

Regulation of Investment Institutions. Of protection afforded the investor through governmental regulation of investment institutions, more will be said later in the discussion of the various types of institutions. It is sufficient to note here that state and federal authorities exercise an important degree of supervision over the investments and the policies of institutions occupying fiduciary positions.

The investments permitted savings banks and trustees, for example, have been restricted in most states for many years. A number of states publish "legal lists" of securities qualified through meeting certain tests to serve as investments for these purposes. As such investors have found through costly experience, however, a legal list is principally valuable for its exclusion of certain types of undesirable issues rather than for any assurance of the safety of securities that pass the specific tests employed.

Investments permitted life insurance companies, as well as certain management policies, have also been restricted in most states. New York, where the largest companies are domiciled, has been particularly strict in its requirements since the Armstrong investigation in 1905 uncovered highly questionable practices. The federal government has been taking an increasing interest in the life insurance companies, as their assets have expanded so spectacularly that they are now by far the largest single channel of new funds for investment.

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[15] Case *v.* Los Angeles Lumber Products Co., 308 U.S. 106.

An interesting aspect of the development of regulation of institutions for which strict standards of legal investment are prescribed has been the tendency gradually to broaden the originally narrow range of permissible investments, as new groups of securities have come to be popularly regarded as desirable or as the demand for legal investments has tended to outstrip the supply of securities in groups that had been favored. There has been all along, of course, a natural tendency for state tests of legality to mirror local investment tastes and local pressures.

Regulation of investments of commercial banks has been undertaken by both state and federal authorities. The standards of supervision formerly prevailing have been considerably stiffened as an aftermath of the unfortunate experiences of the 1930's. Savings and loan practices formerly were regulated exclusively by the states, but federal authorities have shared in the regulation since the establishment of federal savings and loan associations in 1933 and subsequent years. Regulation of the activities of investment companies and investment counselors by the Securities and Exchange Commission was imposed respectively by the Investment Company Act of 1940 and the Investment Advisers Act of 1940. The significance of these measures will be considered in connection with our discussion of investment companies and counseling.

Risks of Social Change. The most important and least predictable point of impact of political forces on investments is through change in the form of social organization. Security investment, as we have noted, is a function of private capitalism, and as that system evolves and is altered, whether gradually or abruptly, the investor is fundamentally concerned.

Apart from the almost complete control over private activity necessitated by World War II, there has been in process a shift of emphasis from nominal rights of the individual to the national well-being. Corporations are being regulated for the benefit of the public and of the employees, not of the owners, and, as we have noted, debtor-creditor relationships have shifted in favor of the debtor. Even in time of peace, the government undertakes to regulate prices and money rates with national objectives in mind. Broadly, of course, it has perhaps not been realized how largely the "public" is made up of investors, bank depositors, insurance policyholders, beneficiaries of public trust and pension funds, and government bondholders as well as owners of corporate securities—and how nearly public aims should coincide with those of most investors.

Aside from the raising of the vast sums needed to carry on World War II, savings have been absorbed centrally through the sale of federal securities, with an appreciable portion of the funds being devoted to "public investment," often in competition with private enterprise. A large share of investment portfolios consists of securities of the government or of government agencies, and on a large scale the debtor-creditor relationship has been superseded by a government-citizen relationship that amounts to a fundamental change in the investment structure with endless possible implications.

SUPPLEMENTARY READINGS

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PROJECTS

1. Study a copy of one of the SEC's "stop orders." Comment critically on the reasons given for its issuance.

2. Examine the contents of a registration statement and a prospectus covering the same issue. List the respects in which they differ.

PART 3 Investment Policy

CHAPTER 6 Need for a Long-Range Investment Program

Tendency toward Haphazard Approach. More than one commentator has marveled at the casualness with which an investor will put his hard-earned savings into securities chosen at random on the basis of hearsay evidence or of high-pressure salesmanship, with only the haziest knowledge of the risks involved and with no pretense of following an orderly program. It is fair to say that the average investor does not feel that he needs or may spare for the management of his savings more than a small fraction of the effort and planning that went into their accumulation. In part, this attitude is the product of a naively cheerful overestimation of the ease of discovering favorable investment opportunities. In larger part, however, it probably results from lack of time, associated with an understandable stress on the primary importance of the individual's function of "earning a living." In some instances, also, it may be due to disillusionment which has followed turning to supposed impartial experts for advice in the past, thus raising doubts as to the practical value of a more careful procedure.

In this haphazard approach to investment is found much of the explanation for the notorious lack of success of the average small investor. An adequate realization of the nature and ramifications of the problem and a systematic, planned attack upon it are half the battle of investment. Too frequently, even the large and well-informed investor puts the cart before the horse and busies himself with consideration of the merits and demerits of individual securities before he has given adequate thought to the general requirements of an investment policy that will fit his particular needs. It would appear to be obvious that we must decide on the objective we are seeking through investment and consider the principal problems that stand in our way before we may intelligently undertake the actual selection of securities. This exercise of judgment on general policy is a separate function from that of research into the qualifications of individual issues. The several chapters of Part 3 will be devoted to the problems and points of policy involved in setting up an investment program, and a discussion of the selection of individual issues will be reserved for Part 4.

Investment Problem Highly Individual. It is not always realized to what a high degree investment is an individual problem requiring an individualized solution. There is no one best investment policy, or rather, if one could be devised, it would necessarily be so broad as to be of little practical use. A primary fact of investment is the existence of many different investment needs and purposes, just as there are many different types and grades of securities to fit them. Brief enumeration of a few of the principal points of difference in the circumstances and aims of investors may serve to make this situation clearer.

We may ask, is the investor an individual or an institution? If an institution, what is the purpose of its existence? Is it philanthropic, is it a mutual nonprofit organization, or is it designed to make a profit for someone? Is it subject to taxation? Under what restrictions does it operate? Must it be prepared to liquidate on short notice?

If a private individual, is the investor man or woman, young or old, employed or retired, single or with dependents? What does he wish to accomplish through investment? Are undue risks involved in this aim? How large or how small is his capital? How large and how stable is his income from other sources, or is he wholly dependent on income from investments? What special business or occupational risks does he run? How must his policy be modified because of income or inheritance taxation? Finally, how much time has he for supervision of his investments, and how much ability and training? In other words, what is the investor's objective, how much risk may he justifiably assume, and what special individual circumstances must be allowed for? An investment program definitely must be tailor-made, though we hope to establish certain general guiding principles. We do not mean to infer that there is only one possible sound solution for the problem of any given investor.

Because of the infinite variety of combinations of individual circumstances that is possible, however, the only practical course for us is to approach first the more general problems common to all investors or to large groups of investors. We need to inquire into typical investment objectives, the principal obstacles in the way of their accomplishment, and the strategies generally followed in circumventing such obstacles. In considering these basic problems, we shall examine further the functions of the various *types* of investment media, their elements of strength and weakness, and the manner in which they may be advantageously employed. In the end, it should be possible to formulate a limited number of serviceable rules and principles as a foundation for practical investment management.

An Investment Program a Balancing of Return against Risks. An investment program is a plan under which an investor undertakes to apply investment policies designed to accomplish a given objective. Since the investor's aim is to secure a return on his capital, and since to obtain a return he must assume certain risks varying in degree with the size and type of return he desires, an investment program may be said basically to involve a balancing of prospective return against risks assumed. The degree of risk which may be assumed, the type of risk which may be selected, and the manner in which the balancing is effected will vary widely in accordance with the circumstances of the individual case, as will also the type of return provided for. The investment program, naturally, considers other qualifying needs of the investor, such as liquidity, and it endeavors to reduce the risk factor through diversification and careful selection of individual securities, but the basic considerations are risk and return.

It is perhaps needless to add that the return which the investor weighs against risk is *net* return after appropriate allowance for taxation. As will be seen in Chapter 11, income taxation has become a highly important factor in investment decisions, especially those of individuals of substantial means. Similarly, it may be most important for an individual to consider his program in terms of reducing estate and inheritance taxes.

Handling of Risks Involved in Cyclical Fluctuations a Controversial Point. Until we have examined in some detail the major risks which confront the investor, we are hardly in a position to weigh them and to plan an investment program intelligently, or to judge with any finality the relative merits of different investment policies. On the other hand, it is necessary at the start to call attention to the point at which a basic cleavage between investment policies generally begins, for we shall have cause continually to refer to the controversies which surround it. This point is: What is the sound method of handling the risks involved for investors in the wide cyclical fluctuations in economic activity and in commodity and security prices that have become characteristic of our system of private capitalism? The central fact of modern investment experience is that violent fluctuations can and do occur periodically in the prices of virtually all types of securities, as well as in the income from equity securities and in the purchasing power of the return from fixed-income obligations.

Fluctuations in the prices of securities are in themselves by no means a surprising or a recent development. The history of investment is replete with violent price movements, and since the growth of the industrial system the periodic oscillations of the business cycle between prosperity and depression have been regularly reflected in the security markets. Waves of speculation in equity securities have accompanied changes in business profits or shifting appraisals of future profitability, and recurrent collapses in fixed obligations have been a consequence of unsound accumulations of debt or adverse business developments. In addition, changing interest rates and commodity price trends have led to wide fluctuations in the value placed on the safest fixed-income obligations, as we have seen in the record of British Consols (Chart 1, page 37).

Little Consideration Formerly Given to Cyclical Risks. The existence of these fluctuations has naturally influenced investment policy. For a long time, however, they were regarded by the conservative investor as minor, unpredictable, temporary factors. The investor avoided equity risks and invested only in bonds and mortgages, looking forward to the goal of a stable, assured income. His problem was in the selection of individual fixed-income obligations which would offer the maximum annual income return compatible with the risks he could assume. Risks to which he gave weight were primarily the internal risks of the individual security rather than the general risks of price fluctuation. When he did consider general risks he thought in terms of shifting levels of interest rates and commodity prices, viewing cyclical changes in business activity and in equity prices as transitory influences of importance mainly to speculators.

Policy Influenced by Violent Fluctuations of Recent Years. The reasons why cyclical fluctuations now occupy a more important position than formerly in the determination of investment policy are numerous, but they are mainly related to the particularly violent changes of recent decades. The major prosperity-depression cycle in business climaxing in 1929 and 1932 proved to be the most intense and the most prolonged in our history, with aftereffects of a serious nature, and it fostered the belief that increasing industrialization leads to increasing amplitude in business cycles. Likewise, the prices of securities of all classes moved over such a wide range and remained at extremes for such long periods that the investor with some justification began to wonder whether the former conception of stability was not for practical purposes a temporary condition, and wide swings in prices the normal situation. Developments in more recent years have done little to quiet this suspicion.

Another factor of considerable importance in focusing attention on cyclical fluctuations has been the increasing degree to which ownership of industry has come to be represented by equity securities outstanding in the hands of the general public. Such securities are no longer concentrated in the hands of wealthy individuals capable of ignoring temporary fluctuations. The New Era bubble made the common man a stockholder, and succeeding years have seen further extension of his ownership, making security prices more susceptible than ever to shifting psychological tides.

Illustration of the extent to which movements in security prices have been widened and accelerated in recent years by cyclical influences and otherwise is afforded by the accompanying long-range charts. Fluctuations in equity prices are shown in Chart 2, which presents the Axe-Houghton index of prices of industrial common stocks for the period 1883–1948, plotted in the form of quarterly ranges. In Chart 3 is presented the Axe-Houghton monthly index of net yields of high-grade railroad bonds for the years 1900–1948.[1] Study of these charts will reveal more of the practical importance of major "swings" in prices than could be written in many pages. Though past action alone is a highly inadequate basis for forecasting future performance, it is assuredly a pertinent factor deserving of thoughtful attention. In examining the average price movements reflected on the charts, it is well to remember that they do not pretend to represent anything more than general trends, and that the movements of individual securities have in reality often been widely divergent.

Need for a Long-Range Plan. The existence of the violent price fluctuations revealed by the charts is an important reason for cultivating a long-range perspective and planning an investment program well in advance. The alternating hopes and fears that accompany advancing or declining prices are impressively real and extremely difficult to isolate in forming judgments at the time. In investment, the popular course is often a dangerous course, and rarely indeed will it be suitable to the needs of a particular individual. The investor must chart his course in advance if he hopes to avoid serious loss in the tremendous psychological swings that experience has shown will occur. Moreover, he must have a confidence in the long-range soundness of his program that will enable him to stand firm and recognize that security values may for long periods be exorbitant or be unduly depressed, and that persistence of such conditions does not necessarily prove his basic policies wrong.

This does not, on the other hand, mean that the investor's policies should be wholly fixed and inflexible, or so long-range that near-term hazards are disregarded. No one policy is suitable for all purposes and all conditions, and both purposes and conditions, as time passes, are likely to change. Moreover, *a long-term investment program is not the same as the long-*

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[1] Although this index is in terms of yield rather than price, by inverting the scale we have caused the yield curve to move in the same direction as the prices of the bonds, thus making it possible to use the chart as a rough record of fluctuations in price.

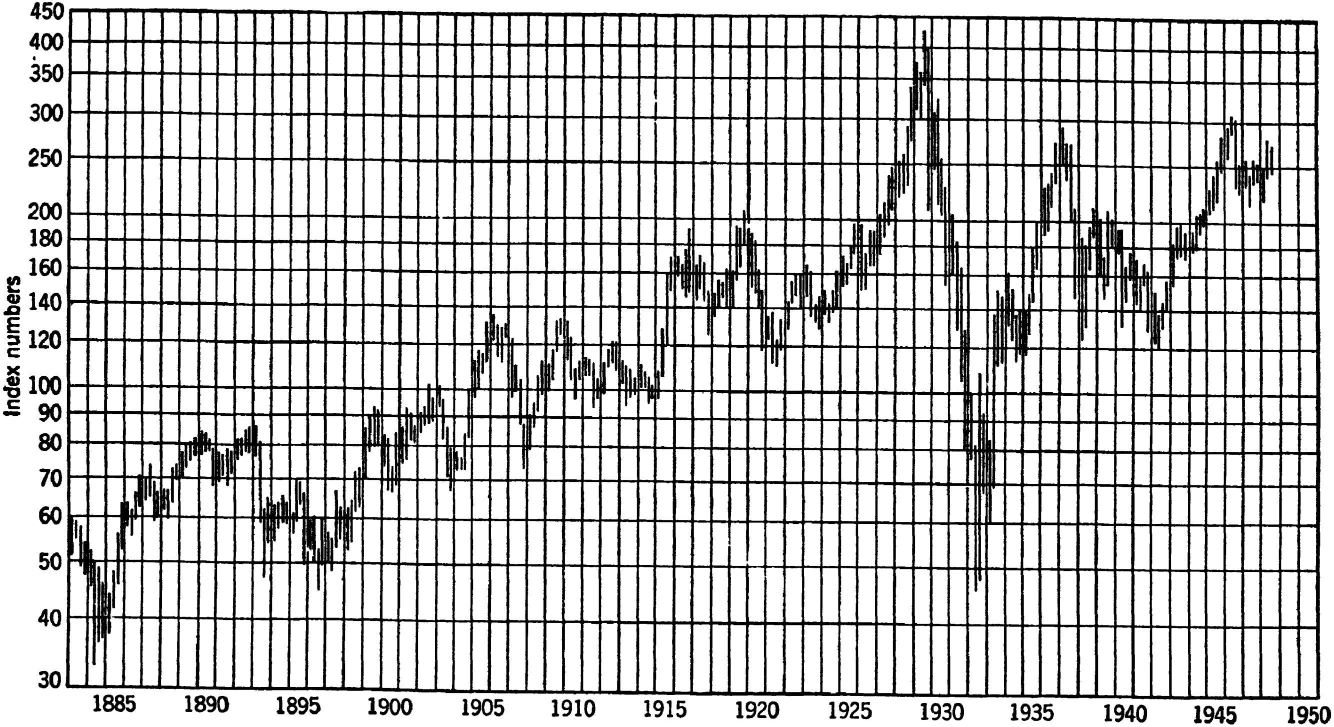

CHART 2. Axe-Houghton Index of Industrial Stock Prices, Quarterly Ranges, 1883–1948.

Source: E. W. Axe & Co., New York.

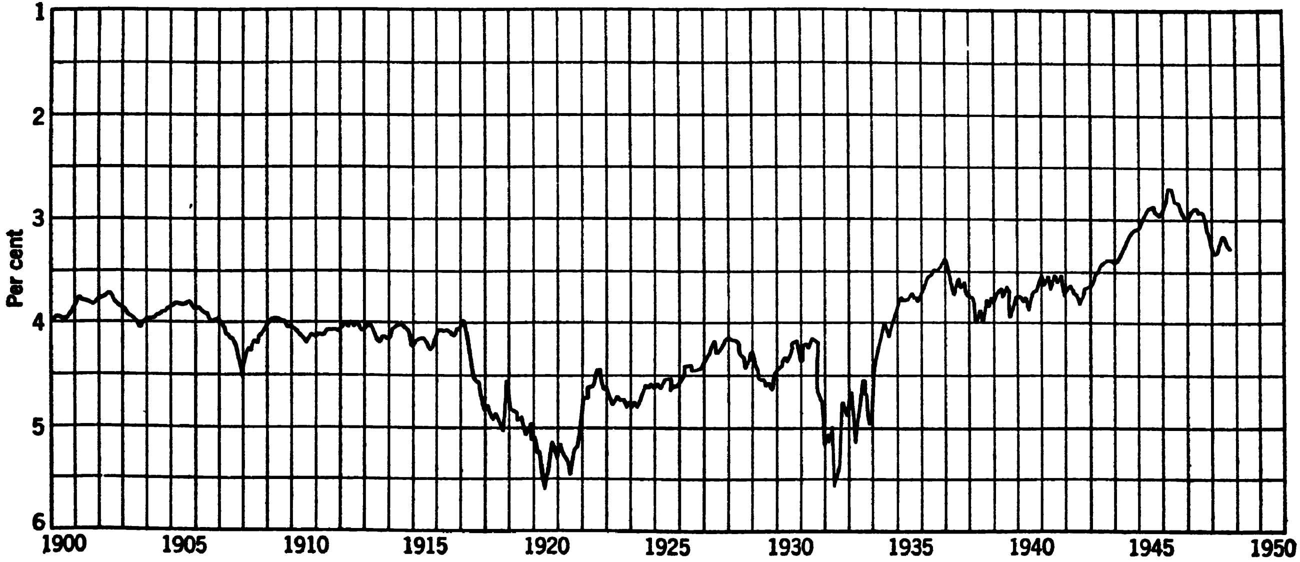

CHART 3. Axe-Houghton Index of Net Yields on High-Grade Railroad Bonds, 1900–1948.

Source: E. W. Axe & Co., New York.

term holding of individual securities. There is no such thing as a "permanent" or "carefree" investment which does not require supervision as a precaution against possible deterioration. A sound investment program may actually embody a high degree of flexibility and frequent changes, provided it is developed on a logical, consistent, and long-range basis.

Importance of Consistent Application of a Policy. It has often been remarked that the skillful and consistent application of an investment policy is of more importance than the particular policy adopted. In other words, there are many sound policies, but none that will be successful if it is not followed with reasonable care and consistency. The merit in this maxim is apparent when we think of the shifts that occur in investment psychology and the frequent strong temptations to vary action to suit current opinion, as witness particularly the floundering about of investors of all classes in the unstable years of the 1930's. We all know of the securities bought for long-term investment at high prices which were sold at ridiculously low prices simply because it appeared certain that they would go "a little lower." Likewise, we are familiar with the paradoxical tendency to buy highly speculative securities in the optimistic atmosphere of prosperity and to buy only the most conservative issues during periods of panic and extreme depression. Inconsistent actions justified at the moment by so-called "unusual times" have too often caused otherwise sound programs to founder. Investment policy need not be rigid, but it must be long-range and definite. Otherwise, the psychological hazards in the way of consistency may prove insurmountable.

Investment Policies in Practice Seldom Simple and Distinct Alternatives. As a practical matter, of course, the investment policies actually employed are rarely of an unmixed nature, and it will be well for us to bear in mind in positing our requirements of definiteness and consistency that we do not ordinarily have a simple choice between a few distinct alternative policies. Instead, we see many gradations of policy and the intermingling of quite different approaches. Individual motives and circumstances affecting investment policy are usually complex, and there is often a healthy tendency to hedge to a degree even if one simple solution appears possible.

No useful purpose would be served here by attempting to make an elaborate classification of investment theories and policies. It will give us a foundation for later discussion, however, if we outline sketchily the major types of long-range policy. For one thing, it will possibly provide a better perspective on the controversy, already mentioned, which exists concerning the proper method of offsetting the risks of cyclical fluctuation, or concerning the propriety of even attempting to meet such risks through investment policy.

Income versus Appreciation. Boiled down and stripped of qualifications, the really basic investment theories are two: investment for income and investment for appreciation. In practice, we develop countless variations and combinations, and there are many important supplementary policies concerning the degree and type of diversification of risks, the length of commitments, the extent to which investments are confined to the most marketable or highest grade securities, and the degree to which "bargain hunting" and switching among individual issues are attempted, to cite only a few examples. The distinction between return upon capital obtained through direct interest or dividend payments upon securities and return obtained in the form of appreciation in their value is, however, fundamental.

Emphasis upon a stable income return is the traditional approach to investment, and "investment for appreciation" has only relatively recently acquired respectability in conservative circles, not all of which are as yet willing to admit the compatibility of the words. Primarily, investment for income involves the employment of fixed-income obligations to produce a steady, perhaps modest, but relatively safe income return, usually requiring a minimum of supervision. Investment for appreciation calls for the employment of equities or depreciated securities, at an extra hazard and with greater need of active supervision, but with the hope of a substantially greater return through long-range appreciation in value. That, in contrast with short-term speculation, the appreciation is expected to be based upon increased earning power or improved financial condition and, eventually, a larger or more secure income return does not alter the fact that appreciation is the goal.

Anticipation of the Future Implied by Investment for Appreciation. Another way of expressing the distinction between these two general investment policies is to point out that in aiming at appreciation we try to foretell the future, to anticipate important changes that we believe lie ahead, whereas in investing for income we try primarily to measure, on the basis of recorded experience, the adequacy of the protection which is provided to insure stability in our income and safety of our principal. Appreciation may come about, of course, from the gradual recognition by investors of an existing situation. Uncertain as the income yield from fixed-income obligations may sometimes prove, it is by its fixed and protected nature an incomparably more real and tangible expectation than is appreciation. Investment based on the future improvement expected in a situation, no matter how reasonable the expectation, is not the same as investment predicated on an existing situation which does not require improvement. Though the ownership of any security implies some forecast of the future, there is a vast difference of degree.

Theories of Investment in Equities. As we have seen in an earlier chapter, the traditional approach to investment, which emphasized income and varied chiefly in accordance with the rate of income desired and the risks that could be assumed, was to an important degree altered in the 1920's by a shift toward investment in common stocks for long-term appreciation. This shift was fostered by dissatisfaction with the performance of fixed-income obligations in the years preceding and by widely publicized studies showing large gains that had been enjoyed at the same time by owners of diversified lists of common stocks, but it also rested on a logical theory. This theory was ably advanced in 1924 by Edgar L. Smith in *Common Stocks as Long Term Investments,*[2] a book which will repay attention from the student who wonders, looking backward, how the New Era could have happened. Briefly, Smith's study held that, since the owners of sound common stocks were favored by compounded earnings on the portion of profits reserved each year for reinvestment in the business, over a period of years a material appreciation was inevitable in the principal value of a diversified holding of such common stocks in essential industries.

Shortcomings of Common Stock Theories. This theory was logical, and true within limits, but unhappily most practitioners overlooked two essential limitations: (1) the theory assumed continued expansion of industry and adequate opportunities to employ surplus funds profitably; (2) the market price of a stock may conceivably become grossly excessive despite the most highly favorable growth trend in earnings. An unfortunate fact about investment in common stocks is that they frequently do not move in price even remotely in line with changes in their intrinsic value and dividend payments. In consequence, concentration on common stocks is likely to lead eventually to a disregard of investment standards and to a speculative attitude concerned only with fluctuations in price. When the investor's return is derived from changes in market valuation, it is not always easy to separate long-term appreciation due to growth or internal improvement from speculative profit return due to favorable short-term fluctuations, and an equity program, which was sound at its inception, may insensibly slip into mere speculation on fortuitous and unpredictable short-term trends in prices.

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[2] Macmillan, New York; see also C. C. Bosland, *The Common Stock Theory of Investment,* Ronald, New York, 1937.

The collapse of the great stock price speculation culminating in 1929 and the persistence of the long depression of the 1930's greatly tempered the enthusiasm of advocates of the common stock investment doctrine, and more favorable experience in the 1940's has only partly restored it. Rightly or not, the former assumption of perpetual growth appears unreal to the present-day investor, and experience has demonstrated to him that the accumulated surpluses which were supposed to add permanently to the value of a stock could melt away almost overnight. Nevertheless, since the average investor has also been disillusioned by fixed-income investment, and since he could not now wholly abandon equities even if he wanted to do so, it is natural that new and revised theories of common stock investment should develop.

Investment in "Growth" Common Stocks. These new theories have taken two main directions. The first tendency is toward revision of the old theory from its very broad application to one limited only to the common stocks of corporations engaged in a few expanding industries or of certain notably progressive corporations in less favored industries. Though faith in the steady growth of industry as a whole has weakened, it is obvious that at least some individual industries have a great deal of growth still ahead of them. On the other hand, although no one attempts to dispute such a premise, there is a large school of skeptics who question the practical possibility of selecting individual "growth" situations in advance with any reasonably high percentage of accuracy. The idea that some industries will grow much more rapidly than others is not a new one, and the fact that many instances of profitable growth in the past may be pointed to is less impressive than would be evidence of the ability of reasonably well-informed investors to select such situations in advance.

Not to be disregarded, either, is the possibility that some industries will appear to face such an assured and promising future expansion that their popularity for purposes of long-term investment may push the prices of representative securities dangerously out of line with even the best long-range prospects, exactly after the fashion of 1929. In addition, when heavy emphasis is placed on long-term growth, there is often a tendency to give serious near-term hazards insufficient weight. Without arguing the question further at this time, however, we are forced to admit that, if we plan to employ common stocks and if too much premium is not put on the shares of "growth" situations, our funds will be safer in the long run in this class of issue than they would be in situations where growth prospects were less promising. Such a statement, in fact, merely recognizes the dynamic nature of investment and amounts to an elementary principle of security analysis of which more will be said later.

Cyclical Investment Operations: Their Hazards. A second and perhaps equally general trend is to consider common stocks as primarily short-term vehicles, designed for participation in cyclical "swings" in business activity and in security prices. Scrapping the conception of investment as essentially long-range, the advocates of cyclical operations maintain that with the growth trend in the nation's population and industrial production slackened materially it is no longer possible to look much farther ahead than the current business cycle, at least for common stocks. Common stocks as a whole are said to be no longer assured of appreciation, but only of violent fluctuation. Still, it is argued, common stocks cannot be omitted from investment consideration merely because of this disadvantage, for only in equities may the investor obtain protection against loss of purchasing power through rising costs of living. Moreover, under the unstable modern industrial structure large cyclical risks exist in almost all classes of securities. Since such risks must be assumed in any event, the question is asked, Why should not they be offset by the large opportunities for cyclical profit possible in common stocks?

That there is merit in this plausible argument is agreed, but that such an operation constitutes investment is open to serious doubt. Cyclical fluctuations in the past have been violent, and they may be expected to be so in the future, yet they remain essentially unpredictable. True, the stock market is a pendulum fluctuating between prosperity and depression, but the number of those who have with any consistency succeeded in gaging the extent of its swings is infinitesimal. The characteristics of these fluctuations and of attempts at forecasting them will be the subject matter of Chapter 8. At this point, however, we may register the conviction that there is no method of forecasting such swings in business activity and in security prices that is sufficiently practical or sufficiently accurate to enable the average investor to anticipate them. The factors are known, but they are both numerous and of constantly differing relative importance.

Value of Cyclical Approach. On the other hand, some emphasis on the cyclical approach to investment problems is of obvious value, to the extent that it leads the investor to an awareness of (1) the dangers existing because of the certainty of wide fluctuations in the prices of common stocks and, to a lesser degree, in the market values of fixed obligations, and (2) the consequent necessity for caution in the employment of common stocks and for some flexibility in any investment program. At least, the conservative investor must attempt to recognize periods when greater-than-normal risks of price depreciation exist.

For common stock investment, speaking generally, the sound approach is on the basis that equity risks should be undertaken only when cyclical prospects seem favorable, in the sense that business activity and stock prices are at least mildly depressed and prospects for improvement are believed good. Moreover, the investor should be careful to assume these risks only on the foundation of an analysis showing favorable earnings and dividend prospects for the individual securities, rather than to purchase stocks indiscriminately because he believes general cyclical prospects favorable.

Particularly should he avoid treating profits due to cyclical appreciation as income. Long-range growth in value which the investor in common stocks is entitled to count as return on his capital is not the same as cyclical appreciation in market price. The logic that says one is better off to sell a security and pay himself a return out of his capital than to hold the security for income and suffer an even greater depreciation in market value is sound if good judgment is used in its application, but it is altogether unsound when perverted into the too prevalent conception of income secured primarily from profits due to cyclical price appreciation. The latter idea is dangerously similar to the theory that a good income return may be secured from gambling on the horse races.

Typical Investment Programs Consider Both Income and Appreciation. We have tried in this discussion to point out the essential differences that separate the concept of investment for income from that of investment for appreciation. This distinction is simple in theory, but, when we come to the practical application of investment policy, we find frequent necessity for combining the two theories to obtain the advantages and to offset the disadvantages of each. The theories possess definite complementary qualities, and each enters in large or small degree, consciously or unconsciously, into the vast majority of investment programs, as we shall see more specifically at a later point.

An illustration of this combination of theories is the "balanced fund," which has been in recent years perhaps the most widely accepted type of program. Such a program provides for holdings of both fixed-income securities and of equities, the "balance" between the two being determined by the degree of risk the investor is able or willing to assume. Most frequently, some provision is made for varying the proportions of different types of securities at different stages of the business cycle, and nearly always the need for flexibility is recognized. The "formula plans" for investment management which we shall discuss in Chapter 8 fall in this classification.

Is Capital Preservation an Alternative Investment Objective? A common statement of investment policy is that "the primary object is capital preservation," and the question may be raised, Is this not a third alternative to investment for income and investment for appreciation? Reflection will indicate that it is not. The object of the *investor* is to secure a return on his capital, not simply to preserve it. Safety of capital may well be the primary *consideration* of an individual in determining his investment policy, thus limiting the risks he is willing to assume or even stopping him from making any investment at all, but it cannot logically be his motive for the assumption of risks. His object then is income, with the qualification that he will insist on the highest degree of safety possible. Some confusion arises, of course, from the fact that the individual may be interested in preserving the *purchasing power* of his capital rather than its nominal value. In that event, however, is he not investing for appreciation in nominal value?

The question of safety or, more properly, of the degree of risk the investor should be prepared to assume, along with the subject of diversification and other methods of minimizing risks, has been largely deferred to subsequent chapters, because of the variety of risks we must consider and of the importance of individual circumstances. We should never lose sight of the fact, however, that risk is inevitable in investment, and that an investment program is primarily a method of achieving an appropriate balance between risks and return. Moreover, the greater emphasis is on risk, not on return. The question is not "What return would you like?" It is "What risk can you afford?"

SUPPLEMENTARY READINGS

Bosland, C. C., *The Common Stock Theory of Investment,* Ronald, New York, 1937, especially Chapters 2 and 13.

Dunn, H. W., "A Persistent Delusion," *Investment Counsel Annual,* Vol. II, 1939, pp. 6–39.

Rose, D. C., *Practical Application of Investment Management,* Harper & Brothers, New York, 1933, pp. 17–39.

Spurrier, L., *Common Stocks and Bonds as Long-Term Investments,* University of Chicago Press, Chicago, 1941.

PROJECT

Submit interpretations of Chart 2 (the range of industrial stock prices) and of Chart 3 (the net yields on high-grade railroad bonds) after bringing them up to date.

CHAPTER 7 Basic Risks of Investment

Desirability of an Approach that Emphasizes Risk. Some investors delude themselves with the belief that in return for their thrift the world owes them an opportunity to invest their money with safety and a "fair" rate of return. These are the investors who approach their problem with the conviction that "there ought to be a safe 6 per cent (or 5 per cent, or 4 per cent) investment," and that their task is simply to find it. The most frequent consequence is that they end up in possession of a security promising the yield desired, but at a risk completely out of proportion to what they intended to assume.

Other investors begin by calculating the income they will require and then purchase securities which offer this return, though it may be 10 per cent, at a time when really high-grade securities may yield no more than 3 per cent. Such investors are usually merely tacitly confessing that their needs for current expenditure are greater than their capital fund can support. Instead of consciously dipping into capital as needed, as may be justified in some circumstances, they focus their attention on securing nominal income high enough to cloak capital dissipation, and thus they blind themselves to the great chances they are often forced to take. By reason of their inadequate capital, of course, these investors have possibly the least justification for assuming the heavy risks always involved in securities yielding substantially more than the "market rate."

We maintain that the soundest policy is to approach investment primarily from the standpoint of risk. The investor's first task should be to determine what hazards he wishes to assume and can afford. Then, and not before, he may give weight to income and attempt to secure the maximum return that is compatible with this limitation. Naturally, a wise general program will minimize certain risks found in individual securities and will enable him to secure a somewhat higher income than he could otherwise attempt. He may be sure, nevertheless, that some risk will remain, whatever he does. Anyone who possesses anything of value in this world runs some risk of losing it, and it is idle to dream of perfect security.

Such a platitudinous statement may be looked at askance by those with a practical turn of mind. We cannot, however, too strongly emphasize the desirability of "broad economic thinking" as an ingredient in a successful investment program.

What Are the Risks Involved? In these pages, we have dwelt continually on the inevitability of risk as the central problem of investment. We have also called attention to the wide diversity of forms risk may take, and we have pictured the determination of an investment program as essentially the weighing of prospective return against this variety of risks, in the light of individual aims and circumstances. What then, specifically, are these risks, and how may they be measured?

These questions force recognition at the start of the extreme difficulties of appraising satisfactorily the various hazards of investment. Risk is a vague term, incapable of standardization or of accurate measurement. It cannot be computed in standard units and marked on the face of a security certificate, as is the promised rate of return on a bond. Neither may different types of risks be easily compared to one another or judged when in combination; it is like relating inches to quarts.

We do not mean by this to convey the impression that attempts to grade and compare risks have not been successful in part. Ratings of the relative quality of individual security issues have long been prepared by statistical organizations and are widely employed and recognized as useful tools. Experience has shown, however, that although such ratings may reflect with considerable accuracy the *relative* safety of individual securities, especially the securities of organizations engaged in comparable activities, they may give an entirely false impression of the degree of *absolute* safety obtainable in a security. This is mainly because of the existence of numerous unpredictable external risks affecting whole groups and classes of securities.

Most internal risks, at least those involved in fixed-income obligations, may be graded individually without an excessive margin of error because of the possibility of reducing them to mathematical formulas. None of the intangible risks and few of the external tangible risks, however, are susceptible of mathematical treatment, though they are frequently of great importance. Particularly troublesome to measure are the dynamic risks involving prediction of future economic trends, which are so important to equity securities.

Regardless of this inability to measure or compare all risks satisfactorily, it still is desirable to make a rough classification and thereby to lay a foundation for whatever measurement may prove practical. At least, we shall be able to indicate more specifically the variety and importance of the forces with which the investor has to cope.

Classification of Risks. We are all familiar with the unhappy knowledge that debtors are not always able to pay their debts and that business ventures do not always return a profit. Before we lend our funds to an organization we naturally wish some assurance of its continued financial well-being, or solvency, and before we make an investment in an equity security we want additional evidence of the enterprise's ability to earn us a satisfactory profit. We know, too, that ours is not a static economy, and the fact that an individual, a business concern, a city, or even a nation is both solvent and prosperous today does not mean that it will always remain so. Experience suggests that economic units tend to move "from shirt-sleeves to shirt-sleeves," given sufficient time.

These *financial or business risks* are the first and most obvious risks of investment. They affect directly the solvency or the profitability of the individual organizations whose securities are owned. Among business enterprises, whatever affects profitability naturally also affects solvency to some degree, since solvency is removed from profitability no farther than the balance sheet is removed from the income account.

The possible developments that may affect solvency or profitability are numerous and varied, but they may be roughly divided between "internal" and "external." When we refer to internal risks, we shall mean those considerations which are peculiar to the individual organization, and whose appraisal may be undertaken to a large extent on the basis of known and tangible facts. On the other hand, we shall designate as external risks those risks of change which impinge on an organization from without, and whose appraisal may involve an important degree of anticipation of the future. These include risks of cyclical economic change.

The second general type of risk which we must recognize is *valuation risk,* the possibility that an investment may change radically in value through external influences that do not directly affect solvency or profitability. Risks of this type, though highly important, are very different in nature from those of the first group, and they will be treated separately in the three chapters which follow. In order to round out our discussion at this stage, we may list the principal forms, briefly, as: (1) *price risk,* the possibility of changes in the market valuation on securities due solely to shifts in investment psychology that add to or detract from the popularity of individual issues or of a given type of security, usually associated with cyclical economic fluctuations; (2) *purchasing-power risk,* the danger that commodity prices and the cost of living will advance materially, thus reducing the real value to the investor of both principal and income of fixed-income obligations; (3) *money rate risk,* the chance that a rise in prevailing interest rates will so reduce the capitalized value of a given income that the market valuation placed on securities other than loans maturing in the near future will suffer.

A third general type of risk is *political risk,* the possibility of fundamental change in the social and economic structure, in methods and forms of investment, and in the legal rights and privileges accorded investors. This subject has already been explored in Chapter 5. Historically, political risks have been among the most serious facing investors, and there is every indication that they still are. Modern war, for example, is not simply a matter of aggression and defense; it involves economic and social strains of a grave nature and threatens to bring with it far-reaching structural changes. Gradual encroachment by governments on economic fields formerly the preserve of private capital has been a world-wide trend for many years, and it cannot be accomplished without repercussions on investments.

Internal Business Risks. In attempting to measure the "internal" risks in an enterprise, as we have classified them, we are akin to the physician examining the state of a man's health. We perform tests which are essential but which, in themselves, are hardly a guaranty of future health. An innocent head cold now barely detectable may develop into pneumonia, and a man, after all, may simply be run over by an automobile.

By and large, however, routine check of elementary points of vulnerability is in investment, as in medicine, a vital line of defense against needless risk. Moreover, in measuring the internal risks of an individual enterprise, the employment of specific financial ratios and of related tangible measures of economic health gives the investor practically his only opportunity for grading investment risk on a basis primarily mathematical and mechanical, without heavy recourse to personal judgment.

The practical employment of these ratios and other measures of internal risk will be a major subject of Part 4, in which we shall discuss the analysis of individual securities. For our purposes here, it will be sufficient to list a few typical weaknesses or sources of risk threatening solvency or profitability which might be uncovered on analysis of a business enterprise.

Financial risks
  Inadequate working capital
  Inventory speculation
  Unwise extension of credit to customers
  Excessive burden of debt
  Inability to refinance maturing loans
  Heavy contingent liabilities or lawsuits

Property Risks
- Inadequate or run-down and obsolete plant
- Exhaustion of raw material reserves
- Expiration of patents
- Improper location with respect to markets or raw materials
- Lack of proper insurance against fire, flood, lightning, robbery, embezzlement, etc.

Operating Risks
- High (marginal) cost of production
- Unsatisfactory trade position
- Expansion in new fields
- Inferior or untrustworthy management
- Improper auditing control
- Difficulties with labor

In other words, the investor in the securities of a business enterprise assumes the normal risks of business, whether he chooses to share them in their entirety or whether he places his capital in a preferred position by purchase of a senior obligation. Likewise, the investor in the securities of a nonbusiness organization assumes similar normal and calculable routine risks. Measurement of such risks is primarily the work of the accountant, the attorney, the banker, the engineer, and other specialists. The investor, however, may through careful use of a modest knowledge of accounting and the law protect himself adequately against most of the risks of this class, as we shall point out later.

External Business Risks. When we move from consideration of calculable internal risks to conjecture on the future influence of external forces, our task is vastly more difficult. The central characteristic of our economic and political world is change, and rapid change. It is unavoidable that this change affects to some extent, favorably or unfavorably, the solvency or profitability of the organizations to which the investor has committed his capital. We need not undertake to drive the point home with elaborate illustration. The shifting industrial pattern of modern times, made up of the interwoven growth and decline of industries, both large and small, is a matter of commonplace knowledge.

The elements of this change are so varied, and some may develop so rapidly, that prediction of future trends has proved utterly impractical, except for short periods of time or within very broad limits. Yet some measurement of these dynamic risks is essential. Evidence of individual solvency and profitability at the present time is of only the most limited value to the investor if he does not also have some assurance with respect to the future.

The most practical measurement available to the investor is a rough check of the principal directions from which changes of this sort may strike. The changes may be related to:

(1) *Rate of Growth or Cyclical Fluctuations of the National Economy.* The rate of population growth and of exploitation of new resources and new industries may be rapid, or there may actually be a decline in population or in industrial productivity. In either event, the influence on both business enterprises and governmental units is profound and many-sided. The national economy may also, through a shift in the predominant nature of production, generally from agriculture to manufacturing industry, become much less stable and experience wide fluctuations in production and employment. Such cyclical fluctuations are a major hazard to the solvency and profitability of business enterprises and to the solvency of political units. Their importance justifies their treatment separately in the following chapter.

(2) *Risks Associated with Specific Industries.* The risks of industrial enterprise will vary considerably according to the nature of the particular industry. Some food industries, for example, are characterized by both stability of demand and a rapid turnover of inventories, thus being relatively immune from the danger of sudden large losses. Other industries, such as the steel industry, are at the mercy of sharply fluctuating demand. Some, such as the rubber and leather industries, are forced to carry large inventories, and they suffer seriously when commodity prices decline. Industries vary also in the speed with which their processes and products change, in their degree of monopoly control or of competition, and in the degree to which their prosperity depends on the whim of a few or of many customers. Risks of this type will be discussed in later chapters dealing with the analysis of individual securities.

(3) *New Inventions.* The most devastating and far-reaching industrial changes have been the product of new inventions. Risks of this sort include not only the introduction of new products competitive with old, but also new technological developments that render old plants and processes obsolete. We may also add the risk of a change in habits on the part of consumers, especially the style risk which is so important in many industries. There is little basis on which the investor may anticipate many of these risks, particularly risks involved in changing styles. The risk of a major new invention supplanting an important existing industry is, however, calculable to a degree. Such inventions are seldom complete surprises, as the way has usually been prepared by preliminary invention. Moreover, invention is generally a long step removed from commercial

development, and commercial development itself will ordinarily progress slowly and painfully in its early stages.[1]

(4) *Governmental Policies and Actions.* The financial health of both private and public enterprises naturally is vitally affected by governmental policies and actions. The public credit is dependent on the maintenance of a sane balance between nonproductive expenditures and tax income by legislative authorities. The profitability of private industry is directly affected by taxation, public regulation, tariff protection, subsidies, and many other legislative and administrative measures. Finally, all normal enterprise is subject to the losses and far-reaching disarrangement which may accompany international political difficulties, war, and revolution.

The Other Side of Risk Is Gain. So far our discussion of risk has purposely been one-sided. This has been with the aim of emphasizing the need for a basically critical approach. As a practical matter, of course, risk is only one aspect of a two-sided phenomenon. The reverse of risk of loss is opportunity for gain. Instead of weakening, a situation may grow stronger. For any of countless reasons, the issuer of a security may become sounder financially and more prosperous, or the valuation put on a security by the market may increase. Though change is certain, loss is not.

Analysis of securities is just as much a search for factors of safety or of opportunities for gain as it is a search for weaknesses. These qualities are simply different aspects of the same thing: whether we measure in degrees of safety or of possible profit or in degrees of risk is mainly a difference in points of view. The point of view adopted would make little difference if human beings were sufficiently cold and impartial judges. As it is, most people need some spurring on the critical side, but none at all on the other.

Furthermore, risk of loss is really vastly more important than hope of gain to the average small investor, who simply cannot afford to lose. Most investors in high-grade, fixed-income obligations adopt a similar attitude, for the obvious reason that strengthening of an obligation's position will not bring any greater income to them and offers hope of only minor appreciation. They, for all practical purposes, cannot share in improvement, but they may share heavily in loss.

The Problem of Weighing Risks. Simple recital of the hazards confronting the investor serves a useful purpose in cultivating a critical attitude. The practical need of the investor, however, is for something more than an awareness of risk. He wishes to know, rather, how and to what degree he may avoid it. Admitting that some risk is inevitable, he wants to know how he may measure it and weigh it against prospective return. How should it affect his investment program?

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[1] See S. C. Gilfillan, "The Prediction of Inventions," in *Technological Trends and National Policy,* National Resources Committee, Washington, 1937.

We have suggested means of approaching the measurement of some basic risks, especially those internal risks threatening solvency or profitability, and in later chapters we shall consider this practical aspect further. We have also remarked, on the other hand, on the extreme difficulties in the way of measuring the many important intangible and dynamic risks and comparing them one with another. In too many instances, the individual characteristics of a given investment will give it a combination of risks both difficult to appraise and peculiar to it alone.

In any event, even if we could measure risks precisely we would still face occasional losses. Though we could then be satisfied that the "odds" were always in our favor, there would be no assurance that any given investment might not be lost. Our investment program, if soundly organized, should protect us against such a development.

Avoidance of Risks. The investor has the choice of several policies which he may follow in organizing his investment program for protection against the basic risks we have been discussing. He may, for example, try to eliminate many kinds of risk by avoiding as far as possible securities subject to them; that is, he will try to limit risk through careful selection of individual issues.

An obvious method of avoiding certain risks is to confine investments to securities occupying senior positions. The creditor *as a class* naturally assumes less risk of the kind we have been discussing than does the equity holder *as a class.* The equity holder shares fully in all impairment of solvency or profitability, whereas the creditor is protected to the extent that junior capital provides a cushion against loss. In this respect, however, we must repeat the warning advanced earlier, that the name alone or nominal position of the security, is often very misleading. Because of differences in the relative stability of various industries, and in the relative financial health of the companies within a given industry, the equity holder in one enterprise may quite conceivably be taking less risk than the creditor of another organization.

We have also to guard against the possibility that the security's position in the capital structure of the issuing organization is not what it is thought to be. The issue may be falsely named, its provisions for protection may be improperly drawn, or it may even be fraudulently issued. In brief, although risks may be limited by confining investment to securities in senior positions, this may be accomplished only after careful analysis of the real risks involved and the actual degree of protection from junior capital in the individual case.

A program attempting to avoid risks that are unnecessary would, of course, be concentrated on those securities to which mathematical tests are most easily applied and to which anticipation of unpredictable future change is of minimum importance. Under such a program, few equity securities would qualify for investment, and then only on rare occasions.

Offsetting Risks with Opportunities for Gain. Another common approach to the problem of risk is to emphasize careful selection of individual issues also, but to point selection toward securing an opportunity for gain more than adequate to balance the hazards involved. Instead of trying to limit the risk, the investor will in this case try to satisfy himself that the return in prospect from the operation will be sufficiently large to justify assumption of the risk. In other words, he may attempt by judicious and timely selection to profit from the large opportunities for gain that usually accompany large risks.

Such an approach tends to be speculative in nature and relies heavily on success in foreseeing future trends. Cautiously employed, however, it is one answer to the problem of protecting an investment fund against certain risks which cannot easily be avoided. In a program of this sort, of course, it is important that the investor hold a part of his greater-than-average income or profits on appreciation as a reserve in anticipation of inevitable losses.

Diversification. A third general policy advanced to protect the investor against risk is *diversification,* or the spreading of investments among a broad list of securities of different types in order to minimize the importance of any single judgment. Thus, although occasional losses will inevitably occur, the impact of any single miscalculation will be limited in relation to the investor's total fund of capital.

This policy is realistic in recognizing that at least some of the investor's judgments will prove wrong. It accepts the premises that analysis cannot hope to weed out all vulnerable securities and that no security is safe beyond question. It acknowledges that we must be ready for the unforeseen and unpredictable.

A policy of diversification of investments is often likened to the underwriting policies pursued by insurance companies in insuring buildings against fire. The fire insurance business is founded on uncertainty and risk. The managers of an insurance company know that fires will occur and that the company will suffer losses, but they do not know when or where. Experience has shown, however, that, with careful selection, wide diversification, and limited size of individual risks, the "law of averages" will operate to produce certain average results, and this business founded on uncertainties has become a business of relative certainty.

The parallel between the risks of the insurance company and those of the investor is close, and "the insurance principle" of diversification of risks has long been accepted as an essential weapon in the protection of investment capital. Antonio, in *The Merchant of Venice,* is often quoted:

> I thank my fortune for it,
> My ventures are not in one bottom trusted,
> Nor to one place; nor is my whole estate
> Upon the fortune of this present year.

This principle has been the foundation of the investment policies of the British investment trusts, which are among the oldest organizations engaged exclusively in investment in securities. Many of these investment trusts customarily own from 500 to 1,000 or more different individual securities. Most insurance companies, likewise, follow principles of broad diversification in the investment of their capital and surplus funds, and some of their successful records in this respect go back more than 100 years.

The impression sometimes prevails that diversification is to be had simply by owning a large number of securities, none of which accounts for a large proportion of total assets. This is only a half-truth, however, for true diversification is not the same as *dispersion.* It would be possible, for example, to own a long list of securities and gain very little in safety, simply because the risks in each instance were for all practical purposes identical, merely the same hazards in separate packages. Diversification, properly applied, should also embrace a diversification according to type of risk, according to the nature of the issuing organization, and according to its geographical location, to mention only the more important. Frequently, diversification between different *classes* of securities, that is, between fixed obligations and equities, will offer a means of hedging against certain risks or of accomplishing certain purposes of the individual investor.

Although diversification is useful to the investor mainly as protection against excessive losses, it is not purely a defensive operation. The investor may "average" his judgments on opportunities for gain in the same fashion that he averages his judgments on risks. Assuming skillful selection of individual issues, the normal expectation is that gains from successful investments in a diversified list will be more than adequate to offset losses as they occur. Since losses occur irregularly, however, it is desirable that the investor's program provide in some fashion for the accumulation of a reserve against losses, so that he will not spend all his income or his gains from appreciation as they are realized.

The typical fire insurance company transfers at least a portion of its profits to surplus as a reserve against future extraordinary losses. So also do investment trusts of the British type set aside a portion of their income and all their profits from appreciation. Such a reserve is, it would appear, even more essential in an investment program than it is in fire insurance. Fire insurance underwriters have benefited from the development of fireproof building materials, stricter city building codes, and improved fire-fighting methods that have greatly reduced the incidence of the conflagrations that once swept our cities periodically and caused losses that could be met only from accumulated reserves. The investor, on the other hand, continues to face a serious "conflagration risk" in the shape of general destruction of security values during the downward phase of the business cycle.

Limitations of Diversification. The limitations as well as the merits of a policy of diversification should be recognized. After all, diversification is nothing more than a spreading and averaging of risk, and the quality of the result will vary directly with the quality of the individual securities selected. All that such a policy assures is average results for the class of security selected, and the investor still has the problem of determining the class or classes of issues appropriate to his particular aims and circumstances. Moreover, much will continue to depend on the skill exercised in the selection of the individual issues in each class.

In other words, a policy of diversification needs to be supplemented with other policies we have mentioned, such as that of careful selection of individual issues, and by other policies which we shall consider later. It is an essential tool of the investor, but it is by no means the only one.

The investor should also avoid giving excessive weight to mere numbers. Beyond a certain point, there is little gained through ownership of a greater number of securities, and there may well be positive disadvantages. The location of this point in a particular case depends principally on the number of satisfactory securities available, on the size of the investment fund, and on the number of issues the investor concerned is able to select and to follow with proper care and efficiency.

Finally, the word "average" should be emphasized. Diversification offers assurance of average results, but nothing more. Given any particular group of securities, chosen carefully or carelessly, it guarantees only that the investor who spreads his funds among all the securities in the group will not do so well as he would if he purchased the best of them, nor so poorly as he would if he purchased the worst of them.

SUPPLEMENTARY READINGS

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PROJECTS

1. Select a leading corporation and list in some detail the principal external and internal business risks that seem to be facing it at the present time. Appraise their relative importance.

2. Select from as many different industries ten industrial common stocks that were among the most active on the New York Stock Exchange during the last calendar year and compare their individual net percentage changes in price for the year with the net change shown by the Dow-Jones industrial stock price average. Note the effect of diversification as reflected in the average.

CHAPTER 8 Risks of Cyclical Change

Increased Importance of Cyclical Risks. The risks which we have designated as "cyclical" are deserving of separate treatment and special emphasis, both because of their importance and because of the confusion of policies to which they frequently contribute. Primarily, these are risks of general deterioration of economic conditions and of security values (the "conflagration risk"), in contrast to risks of deterioration of individual situations. In theory, cyclical risks are temporary, but in practice they often leave permanent scars on the investor, and the problem of protecting against them has received increasing attention in investment programs in recent years.

Formerly, as we have already remarked, investment theory to a large degree disregarded cyclical change. The investor noted recurrent cycles of speculation in securities and occasional financial panics and depressions in business. He felt, though, that such developments were essentially temporary and unpredictable, and that the only recognition they deserved in an investment program was the provision of an extra margin of safety as protection against them. With the twentieth century, the increasing breadth and availability of business statistics stimulated research into the fluctuations of business activity and financial markets and led to the discovery of a striking similarity and regularity of pattern. It was believed that the possibilities of successful prediction of cyclical changes and of a measure of control over them had been greatly enhanced, but such fluctuations were still considered to have distinctly secondary importance in a sound investment program.

The long years of prosperity in the 1920's seemed to justify this belief, and it was widely accepted that with the monetary control provided through the Federal Reserve System there was no longer any basis for serious cyclical derangement. Some investment authorities remarked that the business cycle was "a trifle passé." This view was reversed completely, of course, by the extraordinary depression following 1929, which affected business activity and all classes of securities with unprecedented severity.

In order to provide a more tangible background for discussion of cyclical risks, reference is suggested to Chart 4, which shows fluctuations in industrial production since 1900, along with a curve of the growth trend in population for the same period. From the viewpoint of the investor, such a combined record of cyclical fluctuations and growth is of much more value than the customary nicely adjusted oscillations of business around a theoretical "normal" after removal of a calculated growth trend, though the latter method is more effective in isolating cyclical manifestations. The investor's results are not obtained under conditions of isolation but are influenced *at the same time* by both growth (if present) and cyclical influences, as well as by other factors which we shall discuss such as long-term trends in purchasing power and in money rates.

Reference should also be made here to Charts 2 and 3 (in Chapter 6), showing both cyclical and longer term changes in bond and stock prices. Comparison of these charts with Chart 4 will be of especial value in revealing the erratic relationship between cycles in business and in security prices, and between fluctuations in prices of fixed obligations and of equities.

At present, there exists a real question as to whether events of the 1930's may not have led to undue magnification of the importance of cyclical changes. Investors in general have now accepted such periodic fluctuations as inevitable, and some go so far as to consider conditions of sharp change as normal and stability as abnormal. The latter class of investors will do well to look back before 1929 and note that the cycle is not a brand new development, but simply an old phenomenon that has lately assumed grander proportions.

The chief current debate is on the *amplitude* of the cyclical fluctuations we may expect, and the *degree* to which consideration of the cycle should be allowed to influence investment policy. The continued existence of the cycle is taken for granted. Plausible evidence may be advanced, in fact, to show that cyclical swings are increasing in breadth and amplitude and, consequently, in importance to the investor. At any rate, a considerable group advocates shifting all investments to a short-term cyclical basis, perhaps contributing thereby more than a little to the sharpness of fluctuations in security prices. The old-fashioned investor who still looks on cyclical fluctuations in the prices of securities as in large part meaningless is rare indeed.

We have already given some brief attention to the general theory of investment which places primary emphasis on cyclical changes. It will

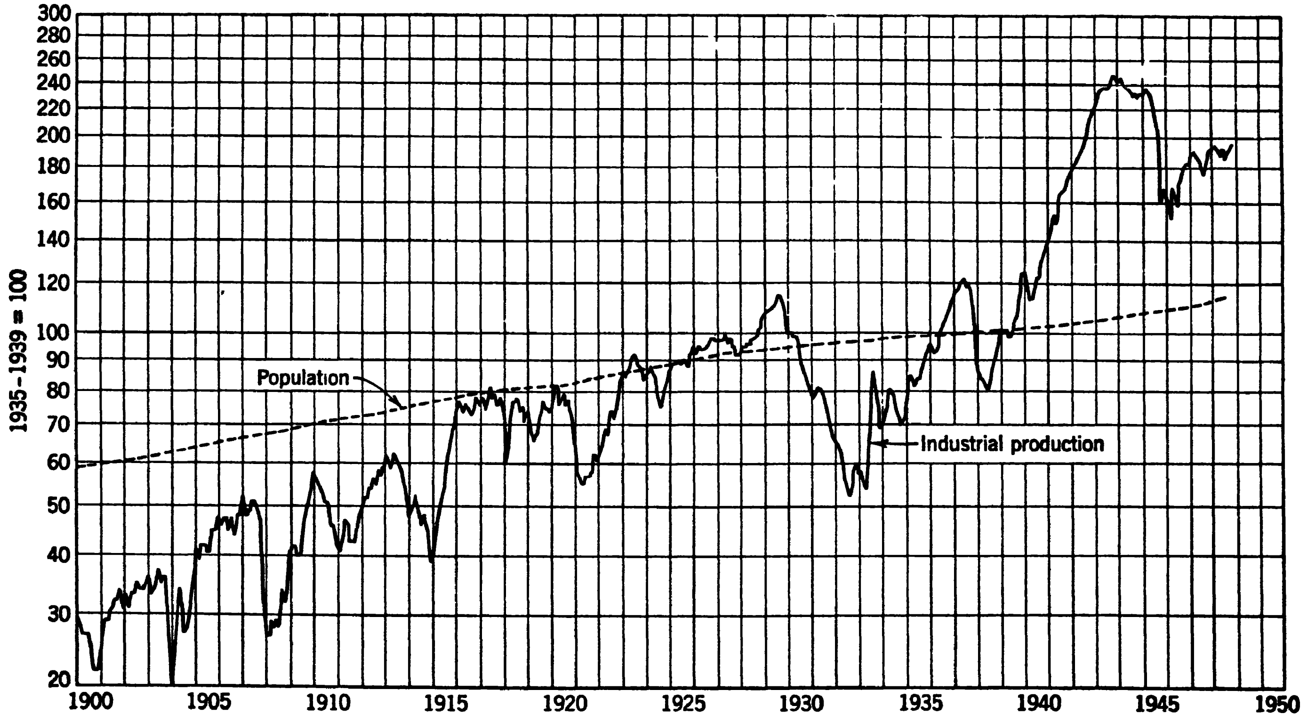

CHART 4. Federal Reserve and Standard & Poor's Indices of Industrial Production, 1900–1948 (1935–1939 = 100; Corrected for Seasonal Variation).

Source: Production index, Standard & Poor's Corporation, 1900–1918; Board of Governors of the Federal Reserve System, 1919–1948; annual population estimates, U. S. Bureau of the Census.

pay us to inquire into the nature of these changes and into the various possibilities the investor may have of protecting himself against the risks involved. Clearly, this is a phenomenon requiring analysis and a policy on the part of the investor. The risks are temporary, but they are real and large.

Though these risks are very much interrelated, for convenience we may separate them into (1) the risks of the business cycle, and (2) the risks of the cycle in security prices. In other words, cyclical change threatens the investor through periodic general deterioration of income and asset protection and through periodic general decline in the market valuation placed on securities. The second development normally occurs in anticipation of or in reflection of the first, but not necessarily so.

Risks of the Business Cycle. Wide and sometimes very sharp changes in production, trade, employment, commodity prices, purchasing power, bank credit, money rates, and the other economic factors whose fluctuations go to make up the business cycle are obvious realities which threaten the profitability and solvency of business concerns as well as the financial stability of governmental units. Periodically, they weed out marginal and financially shaky business enterprises and test the strength of sounder concerns. They also operate to increase the expenses of governmental agencies at the same time that they reduce tax revenues.

These risks, of course, are not in most respects very different from the other business risks to which we have referred. It would be unwise in the *analysis* of an individual situation to differentiate greatly between periodic and haphazard business risks. The qualities which afford an enterprise protection against ordinary business risks also protect it against cyclical risks. After all, changing volume of production, sales, prices, and profits are a part of the everyday life of business, whether or not they take the form of day-to-day fluctuations, cyclical swings, or long-term trends of growth or decline.

Taken separately, the essential risks associated with the business cycle have more bearing on the investor's policies and program than they do on his analysis of individual securities. The real danger in cyclical fluctuations is not that they threaten a given security, but that they threaten wide classes of securities *at the same time,* even though to varying degrees. Wise management can protect an enterprise from many internal and external risks, but it is relatively helpless against the broad and uncontrollable cyclical movements that affect all businesses, such as sharp fluctuations in the level of raw commodity prices or drastic changes in the incomes of consumers. In the very nature of cyclical swings in business, it is impossible for more than a small minority of businessmen to anticipate the changes in advance, since the swings are in large part manifestations of a general unanimity of sentiment regarding business prospects.

For these reasons, the safety device of diversification is of limited usefulness in guarding against cyclical risks, except as it balances the investor's program between equities and loans. Within these broad classes, it will function only to the extent that different industries and different companies are unlikely to feel the impact of cyclical change to the same degree.

The Cycle in Security Prices. Cyclical fluctuations in business may affect the investor either through variation in his income, through a change in the valuation of his capital, or generally through both. The business cycle both reflects and is reflected in the "market cycle" of security prices, in which it is the major ingredient. Developments or expected developments in business are translated by the security markets into price fluctuations, in accordance with the indicated impairment or enhancement of solvency or earning power, but with allowance for existing financial pressures or stimuli and for the state of mind of investors.

The security markets by nature are forward-looking, more often engaged in attempting to anticipate future developments than in reflecting those of the present. Since, in addition, the true extent of the impairment or enhancement which may have occurred in the position of an enterprise is always in doubt at the time, as well as dependent on future trends, the cyclical movements of security prices will frequently not correspond closely to business fluctuations. The prices of equities, experience suggests, tend to exaggerate fluctuations in business, whereas prices of fixed obligations tend to move more moderately. The charts referred to above illustrate the nature of these relationships. The effect of cyclical changes on the investor will vary in part according to the severity of the cycle and in part according to the relative stability of the securities in which his funds are committed.

It is often remarked that an investor's primary aim should be income and safety, and that he should not be concerned with mere fluctuations in the prices the market chooses to place on his securities. This approach has much to commend it, and we shall consider it further, but it must be observed that changes in the price of a security are not always "mere fluctuations." They may indicate a definite change in quality.

Nearly every risk of investment when it materializes takes the form of a decline in price. Loss in securities must be translated through the agency of price. A lower price normally indicates the market's belief that the situation has been weakened so that the anticipated return from it or even the safety of the principal is threatened. In an equity security, where there is no engagement to repay the principal invested, market value is the most practical basis for determining whether one's capital is intact.

It is desirable to make the further distinction here that, although "price risk" is often said to exist wherever changes in price threaten, the possibility of such changes is not for the most part properly described as *risk*. Usually, these changes are simply the means by which other risks may be measured, the medium through which deterioration is registered. True "price risk," on the other hand, is not a matter of changes brought about through internal or external developments tangibly affecting the intrinsic value of a security; it comprises the danger of shifting valuation by the market more or less regardless of tangible developments.

With respect to individual securities, this risk is essentially that of purchasing a sound security at an excessive price. Proper analysis of a security necessarily requires careful judgment as to the appropriateness of its price. Of the many factors entering into this judgment not the least important, but certainly the most unstable, are those psychological influences reflecting the state of mind of investors at large which are associated with the business cycle.

It is for this reason that the cycle in security prices is entitled to careful consideration over and above that accorded the cycle in business and earnings. Human beings have a tendency to waver between periods of confidently anticipating the best and of becoming resigned to the worst. The emotional shift, therefore, between general optimism, usually prevalent in times of prosperity, and pessimism or despair during periods of depression is a highly important ingredient in the prices of securities. Inevitably, at the extremes of the cycle, it operates to distort the relationship between market price and what might be considered intrinsic value. Moreover, it has frequently been intensified in periods of depression by conditions of financial panic which have forced prices lower against the judgment of investors.

These are the hazards that make conservative investment in common stocks so difficult. Equities bear the full brunt of the sharp cyclical fluctuations of our economic system and, in addition, they suffer from a demonstrated emotional instability on the part of investors which makes their prices, not merely individually, but *as a group*, subject to sharp divergence from calculable values. As suggested above, diversification among many issues is of little value in affording protection against this risk.

Such periodic divergence has become increasingly marked as uninformed public participation in the security markets has grown. Foolish as it may seem to judge a long-range investment on the basis of a single year's results, or on the projection of a brief trend, this is only too often what occurs. Investors may be well aware that cyclical derangements have occurred regularly in the past and have proved only temporary, but the theoretically temporary conditions always appear impressively real and enduring at the time.

It is perhaps unnecessary to note here that sharp and irrational price fluctuations, in equities at least, are by no means confined to cyclical swings. Prices are subject always to smaller scale divergencies mainly emotional in nature and frequently contrary to underlying cyclical movements. These minor intermediate fluctuations are properly regarded as of little consequence to the investor, but he must be aware of their existence and manifestations if he is to undertake investment in common stocks. Consideration will be given them in a later chapter.

Cyclical Action of Different Classes of Securities. The importance of cyclical risks to the investor naturally varies according to the degree of equity risk he chooses to assume. Highly speculative equities will move over an extremely wide range of price, high-grade bonds may fluctuate only very moderately, and in between these extremes will be the various grades of relatively stable equities and relatively speculative fixed obligations. Many of the more stable equities will, of course, fluctuate less violently than many of the bonds.

Common Stocks

The most elementary fact of investment in equities, as a class, is the volatility of their price action as they discount hopes and fears for the future, and the most striking aspect of this volatility is their cyclical movement, in which the prices of good and bad alike swing sharply together. Any novice is familiar with the phenomenon of "bull markets" and "bear markets" in common stocks. The violence of the impact of such swings in price, however, is not always realized by the student who has not actually shared in them but sees them only as temporary movements on a long-range chart.

The percentage figures in Table 4 are designed to indicate tangibly what these movements have meant in major instances in the past to investors in good-quality common stocks. The figures represent changes in the Axe-Houghton index of leading industrial stocks and do not pretend to indicate the maximum fluctuations that occurred in less sound stocks. The duration of each movement is indicated in order to give a more complete measure of the investor's experience, but reference is recommended again to Chart 2 (page 98), showing the index from which these figures are derived. Such reference will make clearer the erratic nature of price fluc-

TABLE 4

Major Cyclical Movements in the Axe-Houghton Index of Industrial Stock Prices, 1883–1948

Major Declines			Major Advances		
Date	Per cent decline	Duration in months	Date	Per cent advance	Duration in months
1883–1884	45	16	1884–1890	161	68
1893	47	5	1896–1899	115	37
1895–1896	37	14	1900–1902	56	24
1899-1900	31	12	1903–1906	103	27
1902-1903	35	13	1907–1909	86	25
1906–1907	47	21	1914–1916	100	23
1909–1911	32	22	1917–1919	71	22
1916–1917	36	13	1921–1923	53	19
1919–1921	47	22	1923–1929	233	71
1929–1932	89	33	1932–1934	253	20
1937–1938	57	12	1934–1937	160	32
1939–1940	38	8	1938	70	8
1946–1947	31	11	1942–1946	158	49

tuations and the sharp temporary reversals which frequently interrupt even the strongest trends. It will also be noted that the greater part of a cyclical movement in prices has frequently been accomplished within a relatively brief period.

Although the large profits made in common stocks through appreciation in favorable periods are evident from this table, the sober investor will give more attention to the very serious impairment of capital that occurs when purchases are not well timed. Incidentally, of course, it should be kept in mind that a 50 per cent decline is sufficient to wipe out a 100 per cent gain.

Bonds

Cyclical fluctuations are of vastly less importance with bonds and other fixed obligations if the obligations are of good grade. The bondholder's contract calls for fixed interest payments and for a fixed principal sum at maturity. If the debtor is of adequate financial strength, the owner of the bond should in theory be able to shrug his shoulders at the business cycle and calmly await his interest payments. For several reasons, however, this does not always happen.

In the first place, as we know, all bonds are not alike in quality. There is a vast body of debt whose servicing and eventual repayment is sufficiently in doubt to make the valuation placed on it in the markets certain to rise and decline with prosperity and depression exactly after the fashion of common stocks, though ordinarily less sharply because of the stabilizing influence of fixed interest payments.

Second, even bonds whose quality is above suspicion may fall sympathetically, or under forced liquidation to support other assets. Higher yields offered investors by lower grade bonds operate competitively to reduce the prices that will be paid for better bonds. In the past, the fluctuations in interest rates that have normally accompanied the different stages of the business cycle, as the need for credit by business has changed or financial panic has occurred, have naturally influenced bond prices, though not necessarily always in the same direction as common stock prices. The extent of fluctuations in prices of high-grade bonds will, of course, vary with their maturities, those of earlier maturity remaining nearer their principal value.

Bonds may also be said to possess a "price risk" just as truly as stocks, albeit one of relatively minor proportions. It is just as possible to have a wave of enthusiasm for bond ownership as for the acquisition of common stocks, though the smaller rewards possible tend to keep enthusiasm within narrower limits. Such phenomena will be considered more thoroughly later in connection with interest rates.

If we can assume that the investor will be under no pressure to liquidate, cyclical price fluctuations in high-grade bonds may well be disregarded, even if they are substantial. This is an unjustified assumption, however, without the facts of the specific case. Some types of investors, such as commercial banks, may find that small fluctuations in the market valuation of investments may have serious results.

The relative degree of stability in price possessed by good corporate bonds may be judged roughly by comparing the percentage fluctuations indicated in Table 5 with the percentage movements in common stock prices shown in Table 4.

It will be noted that the dates of the declines and advances in prices of high-grade bonds and of stocks only partially coincide, and that occasional periods of sharp change in stock prices have had virtually no visible effect on bonds. Aside from the greater degree of speculation on future change present in common stock prices, the root of this difference lies mainly in the fact that common stocks are affected directly by the business cycle through the medium of profits, whereas good bonds are more directly affected by interest rates and credit ease or strain. For the latter reason, of course, such bonds tend to move with greater uniformity than do com-

TABLE 5

Major Movements in Prices of High-Grade Railroad Bonds, 1900–1948 *

Major Declines			Major Advances		
Date	Per cent decline	Duration in months	Date	Per cent advance	Duration in months
1902–1903	7	15	1903–1905	6	24
1905–1907	9	27	1907–1909	12	15
1917–1920	28	40	1920–1927	35	91
1927–1929	10	21	1929–1931	10	19
1931–1932	24	12	1932–1936	57	55
1936–1938	13	16	1938–1939	9	12
1939	7	3	1939–1940	8	15
1941–1942	6	8	1942–1946	31	45
1946–1948	15	22			

* Based on Chart 3, the Axe-Houghton index of yields, with the movements in yields converted into equivalent movements in the price of a 4 per cent noncallable bond maturing in 50 years.

mon stocks, the trends of whose individual earnings may frequently diverge sharply.

It is obvious from the tables and charts that the investor in high-grade bonds is less concerned with cyclical fluctuations than is the investor in common stocks. At the same time, it is clear that the investor has much less reason to look on bond price movements complacently than he had prior to 1917, or even in the 1920's. The 1917–1920 and 1931–1932 experiences were eye-openers to those who had assumed that prices of long-term bonds were unlikely to fluctuate sharply.

A case may be made, however, for the view that *high-grade* bonds, at least, should not be judged too heavily on their *price* performance under these occasional circumstances of abnormal strain. An occasional temporary decline in market valuation is hardly sufficient ground for condemning an investment which is returning a steady income and has a comfortable margin of safety. After all, the investor in sound bonds who saw the market value of his holdings shrink alarmingly in 1931 and 1932 was entitled to point to the owner of real estate and of common stocks and say, "But see what happened to the other fellow!"

Investment Policies Must Allow for Cyclical Fluctuations. In view of the record of the past, as revealed by the charts and tables we have been considering, our investment policies definitely must take into account the existence of periodic economic fluctuations which affect common stocks drastically and bonds to a lesser though still unpleasant extent. Many proposals have been advanced that look toward the smoothing out or elimination of business cycles and of security price fluctuations, but the investor, remembering unfortunate earlier experiences, can only be skeptical.

Immediately we reach this conclusion, these questions arise: By what means, if any, is it possible to anticipate these movements? If we cannot successfully anticipate them, then what policies will be appropriate to minimize the risks they present?

Forecasting Cyclical Movements in Business. Before we may hope to predict cyclical movements in security prices, we must be reasonably confident of our ability to forecast cyclical movements in business. More than the forecasting of business is involved, of course, but it is an essential first step. Otherwise, we should be hopelessly mired in investor psychology and similar intangibles that are significant only in relation to the base of business activity, earning power, and credit conditions.

We have already indicated our disbelief in the likelihood of any consistent success in the forecasting of cyclical movements in business. The mediocre and sometimes amusing results of past efforts at forecasting business trends are well known. Methods variously elaborate or simple, scientific or empirical, based on cold statistical analysis or on "inside" information from the most influential business and financial leaders, have alike failed of results that might instill confidence.

From this statement it is not to be inferred that some forecasters and forecasting agencies have not achieved a measure of success. What is pertinent to our problem, however, is that no one has developed, or at least brought to the notice of countless searchers, any technique *consistently* successful in predicting major cyclical changes in business sufficiently far in advance and sufficiently accurately to be of more than modest practical value. Advocates of certain theories have occasionally scored brilliant successes and, just as frequently, complete failures. Forecasters not operating on a single theory, but carefully weighing many factors, have less frequently made glaring mistakes but have seldom been sufficiently positive in their predictions when they have been correct.

Existing conflict among students of the business cycle over its causes and cures must inevitably impress the practical observer with the complexity of the contributory forces, notably the psychological factors, which are not only difficult to analyze and treacherously shifting but which also affect the mental processes of the analyst himself.[1] Taken together with the generally undistinguished record of predictions in the past, this complexity in the factors involved offers little basis for expecting better success in the future. The moral appears to be that forecasting business cycles cannot be reduced to a simple or successful science *if* we are going to demand more than a minor degree of accuracy.

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[1] For concise discussion of business cycle theory, see Gottfried Haberler, *Prosperity and Depression*, League of Nations, Geneva, 1941.

It is foolish to say, on the other hand, in view of the wealth of statistical material available and the careful studies made of cyclical phenomena, that nothing at all can be accomplished through forecasting. We suggest that the key may lie in not expecting too much. If this assumption of only a limited degree of accuracy is granted, we may use such forecasts to good purpose, especially for the investor who wishes to assume a high degree of equity risk and consequently must of necessity reckon seriously with violent cyclical fluctuations.

We shall not try to deal here with the details of actual techniques employed in forecasting. Instead, we shall suggest a general approach that, despite its simplicity, encompasses perhaps all that even the equity investor should attempt in this respect. There is virtue in an approach that does not try to accomplish too much and does not hold out promise of perfection but instead simply promotes a flexible and alert attitude on the part of the analyst and makes him aware of the extent of the cyclical risks present. Experience indicates that common sense, with the help of a broad perspective, is often a safer basis for economic decisions than are the most elaborate and refined economic analyses.

A first consideration of the practical analyst should be to recognize that all sharp economic fluctuations need not be cyclical in nature, but may reflect wars, crop failures, legislation, and other "accidental" phenomena. Moreover, cycles are not automatic and regular, either in extent or in duration. Preconceived notions of the normal extent and duration of such movements have proved particularly costly in the past, though a fair degree of regularity has been demonstrated for certain periods.

Our conception of the most practical approach to the problem of cyclical economic fluctuations is in essence an effort to identify the current phase of the cycle. The business cycle habitually has moved through a definite sequence of phases, though the individual phases have been irregular in length and have varied greatly in relative importance from cycle to cycle. These phases are, of course, the familiar conditions generally described as depression, recovery, boom, panic, and then depression again. Because of their well-established sequence, they offer a basis of approach less conjectural than the direct prediction of future trends.

As a means of identification of these phases, we do not have in mind elaborate economic analysis, although such analysis is helpful if the investor is competent to undertake it, for the cross currents in business tend to be confusing. However, the phases are essentially simple in nature, and their identification does not require extensive statistical proof. We are here thinking in terms of general observation of industrial production, employment, trade, business profits, commodity prices, financial data, and other customary measures of the business cycle, with the modest aims of determining whether business conditions are relatively depressed, near normal, or relatively prosperous, and of noting pertinent evidence on the length of time the present phase has existed and on prevailing trends. Depressed conditions ordinarily would be viewed as relatively propitious to investment, and prosperous conditions as relatively unfavorable.

Even accurate identification of the current phase of the cycle, of course, may tell little of the date and form of the eventual transition into the next phase. Yet it should usually be very helpful in guiding the investor with respect to relative risks or opportunities existing in the business situation, and it should help to awaken the analyst to the significance of changing trends when they develop. Something more definite than this general orientation will always be desired, but the person facing practical investment decisions is probably foolish to attempt it.

Forecasting Cyclical Movements in Security Prices. Some conception of the position of business activity in its cycle is an obvious prerequisite to any attempt to forecast cyclical movements in security prices. As we have already pointed out, however, the cyclical action of different classes of securities will vary markedly, and no class can be expected to move directly parallel to business activity.

The prices of high-grade fixed obligations will move in response to interest rates and will reflect credit ease or strain or a shortage or abundance of investment capital relative to the demand for it. A pronounced trend in long-term interest rates or in the purchasing power of money will have a more important effect on prices of high-grade bonds than will cyclical influences, excepting serious financial crises, when the sudden urge or need for liquidity will weaken all prices. True, short-term interest rates have typically, in the past, fluctuated violently with the business cycle, but long-term rates have not moved in nearly such complete harmony with short-term rates as might be imagined. In fact, there sometimes has been almost no correlation. The investor in high-grade fixed obligations who will not be seriously harmed by a brief impairment of market value need not concern himself greatly with cyclical considerations, except in so far as the downward phase of the cycle is generally the immediate agent that transfers vulnerable bonds from high-grade to riskier classifications.

Bonds below the best grade will respond to a greater degree to cyclical influences, and speculative bonds normally move in response to essentially the same influences as common stocks. The habitually violent cyclical movements of common stocks, of course, reflect to an important degree the movements of the business cycle, for the primary basis of their value is in profits, which for corporations as a whole have seldom moved contrary to the main swings in volume of business activity.

Unfortunately for the forecaster, common stock prices do not simply reflect the business cycle. More often, they have tended actually to move *in advance* of and to forecast impending movements in business. The stock markets, with good reason, are commonly referred to as barometers. They are in theory meeting places in which well-informed and ill-informed alike weigh their knowledge, hopes, and fears, along with those of others, to reach a composite judgment regarding the health of business and the probable future course of profits. It is precisely because the stock market is always attempting to judge the future that it occasionally gets so far out of line with realities. The psychological element, as we know, is extremely important. The cycle in stock prices has often been called a cycle between optimism and pessimism, and it appears certain that speculative booms and their subsequent corrections would occur in common stocks even if there were no truly cyclical phenomena.

The critical psychological phase of the cycle in stock prices is the sudden transition from prosperity or boom to panic, which usually occurs when business is still good on the surface and leaves security owners bewildered by its abruptness. If optimism has built up a top-heavy loan structure, its liquidation may force a rapid disposal of securities at whatever prices they will bring. Very careful study of the conditions precedent to such a transition to panic is recommended to the investor in common stocks.

Earning power and dividend payments are the most tangible yardsticks for the valuation of equity securities. Earnings and dividends, however, will not always fluctuate directly with the volume of business activity, and they cannot be predicted simply on that basis. The trend of commodity prices, for example, may be an important ingredient in earnings. Dividend payments, too, are subject to a number of influences besides earnings.

A principal uncertainty is the valuation which will be placed on earnings and dividends when they materialize. One major factor is the interest rates which may be obtained at the time on fixed obligations. Another factor is the extent to which current earning power and dividends are believed to be temporary or enduring. Valuation during the abnormal prosperity of World War I, for example, was held down to a very modest basis in many instances. A similar tendency was experienced under highly prosperous conditions after World War II. On the other hand, the existence of a healthy uptrend in earning power normally increases the valuation which will be placed upon current earnings.

Much of the cyclical variation in valuation of common stocks depends on the duration as well as on the extent of impairment or expansion of earning power. Formerly, cyclical declines in earnings sometimes had only a minor effect on the prices of well-regarded dividend-paying stocks, for such declines were regarded as only temporary interruptions. More recently there has been a tendency to question the certainty of recovery and to weigh cyclical shrinkage in earnings heavily in valuing stocks.

If we assume that we are able to arrive at a rough diagnosis of the condition of business, and to conclude correctly that it is in a neutral, favorable, or vulnerable position, how are we to translate this accomplishment into common stock prices and investment policy? It is clear that we must also weigh first the prospects for earnings and dividends and for interest rates and then the degree to which existing prices may have already discounted these prospects. We must, in effect, identify our position in the market, or psychological, cycle as well as our position in the business cycle. It is obvious that our chances for a high degree of accuracy in this complex analysis are dubious to begin with. In addition, when we consider that the possibility of accidental noncyclical influences, as well as the shifting relative importance of existing factors, may conceivably force us to alter our analysis again next week, the lack of success that has accompanied cyclical forecasting of security prices in the past is understandable.

Different Industries Have Different Cycles. So far we have, for convenience, been speaking of industry as a whole, as if all businesses, and all securities of a given class, were affected alike by the cycle. Before we go further, we should make clear that this is not actually so. First, the different industries with their different products—bread, cotton cloth, gasoline, home furnishings, automobiles, office buildings, steamships—are affected to extremely different degrees by the shift from prosperity to depression and back again. The amplitudes of their individual variations in demand and in profits, and in the prices of common stocks of representative companies, vary tremendously, though major speculative advances and panicky declines in the security markets frequently bring greater uniformity of price action than other factors would seem to justify.

Second, although most types of business activity fluctuate together, varying principally in amplitude, exceptions are perfectly normal. In times of prosperity, some depressed industries may always be found, and, in times of depression, some that are prosperous. Such divergence is just as much to be expected during the cycle as it is over the longer term, and the importance of analysis of industry characteristics is well recognized, though assumption that the stocks of any industry will hold in price contrary to a major general decline can be very costly. At the same time, it is probably true that greater success has been had in the past in predicting the course of individual industries than the movements of industry as a whole, for the reason that the outlook for any single industry is naturally more tangible and less complex than that for the sum of all industries.

Methods of Protection against Cyclical Risk. We have expressed the conviction that the possibility of consistently successful anticipation of cyclical movements in prices by any but the unusually gifted or lucky investor is so slim as to be disregarded, and we have attempted to outline the complex forces contributing to this situation. Though, in theory, the best protection against cyclical risks might seem to be an attempt to take advantage of the offsetting opportunities for cyclical appreciation, experience has demonstrated that only the wisest and nimblest may safely engage in this essentially speculative practice. The large and expertly staffed American investment trusts, for one obvious example, have on the whole had disappointing results in following this course.

How much less are the chances of the average investor, with his limited time and effort, scanty sources of information, and lack of experience and training! A point worth some consideration is the strain on the nerves of the investor who must worry about every swing in prices. Incidentally, also, many investors cannot afford to overlook the fact that the source of their salaries or other direct incomes is also subject to the vicissitudes of the business cycle. A man taking heavy cyclical risks in his business or employment may be foolish to assume similar risks to any important degree in his investments.

What policy, then, should an investor follow in order to protect himself against cyclical risks? The obvious answer is that if he will be embarrassed by temporary price fluctuations he should confine his investments to fixed obligations of relatively short maturity and of a grade sufficiently high that they are unlikely to fluctuate seriously. On the other hand, the investor may desire to protect himself at the same time against advancing costs of living, may wish a better income, or may want to own equities for other reasons. Under such circumstances, his best line of defense is to follow the course outlined earlier of concentrating on *identification* of the phase of the cycle, and consequently on the degree of risk or opportunity existing rather than on attempting directly to *forecast* future trends and turning points.

Naturally, recognition of the improbability of successful anticipation of future changes does not mean we must close our eyes to the degree of risk or opportunity present. It is only common sense to try to refrain from buying when prices are abnormally high and from selling when they are abnormally low. Knowing that prices move to extremes, the investor must keep his balance. Any program of common stock investment must involve cyclical risks, and it is sound policy to confine purchases under such a program to periods when such risks are believed to be relatively small and counterbalancing prospects for gain are believed to be relatively large. There is much to be said, also, for "time diversification" or avoidance of making an unduly large proportion of commitments at any one time. It is essential that the perspective, at least, of the program be long-range.

The Balanced Fund. Most investors, as we noted earlier, will attempt to minimize cyclical risks to some degree by balancing their investments between high-grade bonds and mortgages or savings bank deposits, on the one hand, and lower grade bonds or equities, on the other. Such a "balanced fund" serves to compromise many other risks and uncertainties in addition to those cyclical in nature. The degree of weight given each type of security in a program of this sort will naturally vary with the circumstances and aims of the individual.

A division of investments into 50 per cent equities and 50 per cent high-grade fixed obligations, for example, might be adopted. Some investors would then follow a policy of simply sitting still with these investments, but others would maintain the percentage division arbitrarily at all stages of the cycle, employing it as an automatic means of insuring the transfer of some funds from equities when they increase substantially in price and the switching of funds to them when they decline materially in price. Other investors would attempt to vary the percentage in accordance with their judgment of the position of the cycle, so that perhaps 80 per cent would be in equities if prices were believed to be really depressed.

Formula Plans. Methods employed for automatic adjustment of the balance between equities and fixed obligations in an investment fund to some prearranged norm are now generally referred to as "investing formulas" or "formula plans." Such plans have become increasingly popular as more and more investors have recognized their own inability to forecast cyclical economic fluctuations and security price movements with any significant degree of success. Institutional as well as individual investors have become persuaded of the need for supplementing their own judgment by plans designed to force automatically the transfer of a portion of their funds to relatively volatile issues when prices are depressed and to high-grade defensive issues when prices are high.

Formula plans must fit individual circumstances and in consequence differ considerably in detail, but they fall into two chief classes.[2] First, they may be purely mechanical devices, with constant ratios established for equity and bond holdings; for example, 40 per cent of the total fund in equities and 60 per cent in bonds. Should the market value of equity holdings rise above or fall below this figure by, say, 5 per cent, appropriate action would then be taken to restore holdings to the original percentage.

Second, judgment may be exercised regarding the probable range of fluctuation of security prices, and automatic action may be provided only within this range. Instead of a constant ratio between equities and fixed obligations, variable ratios may be established, the ratio in use being determined by how far average stock prices are above or below a median which has been selected. The results of this method are heavily dependent on success in selecting an appropriate median and in estimating the probable amplitude of fluctuations.

The Importance of Income. Undue emphasis on cyclical movements may, unfortunately, serve to take the investor's attention away from more vital considerations. There is much to recommend a policy emphasizing those aspects of investment which do not lean heavily for their success on either diagnosis or prediction of cyclical movements. Such a policy disregards temporary fluctuations in price and concentrates on securing a good and relatively steady income return. The power of compound interest should be at the heart of a long-range investment program. Too frequently, the loss of income due to substantial cash balances built up from time to time by those attempting to anticipate cyclical swings in prices will more than offset what moderate success they may have in such anticipation. The British investments trusts long ago abandoned thoughts of spectacular gains through appreciation and settled down to long-range programs of building up income, which they, not unreasonably, have viewed as the purpose of investment. To quote David Pirie, chairman of the famous Alliance Trust Company of Dundee, at its annual meeting of 1937, a time when stock prices were relatively high:

> We have in the past commented on the essentially fleeting character of Stock Exchange values, and we should never suggest that the position of the company should be estimated solely or even mainly by the valuation of its bonds and

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[2] See H. G. Carpenter, *Investment Timing by Formula Plans,* Harper & Brothers, New York, 1943; and Lucile Tomlinson, *Successful Investing Formulas,* Barron's, New York, 1947.

stocks at any given date. The essential factor is the real earning power of the company, present and prospective.

Similarly, Sir Miles Mattinson addressed the annual meeting of the Mercantile Investment and General Trust in 1932, at a time of worldwide depression:

> I do not attach any great importance to market values as a test of intrinsic values. The violent fluctuations on the Stock Exchange do not profess to take merits into account, but merely reflect the pressure of necessitous sellers on an impoverished and panic-stricken market.

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PROJECT

Examine the present position of the business cycle. How serious are cyclical risks currently? What allowance should investment policy make for them?

CHAPTER 9 The Purchasing Power Risk

Future Purchasing Power of Money Uncertain. A distinct and important class of investment risk is that associated with long-term fluctuations in the level of commodity prices. It has long been recognized that whenever any commitment promising a fixed money return in the future is entered into, the parties to it face the possibility that the purchasing power of money will change. That is to say, money transferred in the future may be more or less valuable in terms of the actual goods and services it will purchase than the same nominal sum of money is now.

Thus, should prices of goods and services fall, the sum of money to be transferred will increase in real value. The burden of payment of the sum will be greater than is now contemplated, and its value to the recipient will be correspondingly augmented. Should prices of goods and services rise, the reverse will occur, the burden on the payer decreasing and the recipient losing through his reduced purchasing power.

This obvious and well-publicized risk, that the real value of a fixed money obligation may change before maturity, is unavoidable in any such contract extending over a period of time, for prices of goods and services are commonly in a state of flux. Usually, of course, especially over short periods, the degree of change which is likely to occur is not great. Though certain sensitive prices—notably the prices of agricultural and mineral raw materials—habitually fluctuate violently, the average of all commodity prices changes much more slowly. The "cost of living" of the average individual, the most satisfactory general measure of purchasing power, normally fluctuates more slowly still, owing to the importance of many relatively inflexible expenses. Moreover, moderate changes in living costs may actually be barely discernible to the individual, particularly if accomplished gradually.

Unfortunately, as we know, shifts in prices (and, conversely, in the value of money) are not always moderate. Occasionally, they may prove extremely violent. Major changes in the level of commodity prices have in numerous instances, both recent and remote, greatly altered the purchasing power of money and upset the relationships previously existing between debtors and creditors.

Within the span of experience of any single generation, violent general price change of this sort has been infrequent, and it is properly regarded as an abnormality, generally the product of a major economic upheaval, such as war, or of unsound fiscal policy. Nevertheless, the consequences when such a change does occur may be extremely serious to investors. We may not safely dismiss investment risks simply because they are abnormal and should be expected to materialize only infrequently.

Going back only as far as the end of the nineteenth century, we find the risks associated with purchasing power given scant consideration by investors, for the price level had then been gradually declining for many years, the gold standard was in smooth and general operation, and major currencies, especially the pound and the dollar, were conceded on their records to be sound. Optimists even suspected that scientific and social progress was leading rapidly toward a condition of lasting economic stability. Risks of major change in the price level were all but forgotten, except by the theorists.

As we know, this period was succeeded, first, by a gradual but substantial rise in the price level which led to somewhat greater consideration of the risks involved and, then, by World War I, which brought about price inflation everywhere and eventually the collapse of many important currencies, to the loss or ruin of countless investors who had believed themselves highly conservative. During the 1930's, currency depreciation developed again, and this was followed shortly by the substantial price inflation and widespread currency depreciation associated with World War II.

At the present, there is no longer any failure to acknowledge the risks involved or the necessity for protection against them. The conviction is strong that enduring economic stability is an unattainable goal, and that wide fluctuations in commodity prices will continue to occur. Investors have learned, however, something more of the difficulties in the way of effective protection against this type of risk. Increased consideration has not prevented increased confusion of policy. Our discussion will be as much concerned, through definition and otherwise, with clarification of the issue as with the suggestion of means of protection.

The Practical Risk to Investors Is the Possibility of Shrinkage in Purchasing Power. The practical investment hazard associated with shifting price levels is the possibility of material *shrinkage* in the value of money (i.e., a higher cost of living). The investor in fixed obligations, occupying the position of a creditor, plainly is vitally concerned with this possibility, which we shall designate as *purchasing power risk*. There is, of course, a reverse side to the risk: if the cost of living declines, such an investor will actually gain in purchasing power. His primary purpose in the ownership of creditor securities, however, is seldom the capture of profit, except when he employs shaky and depreciated fixed-income obligations more properly classed with equities.

Rather, such an investor is normally searching first of all for income involving a minimum risk of loss. The chance that the fixed-income payments and the principal of the obligations due him may increase in purchasing power requires little consideration in his investment program, but the possibility of substantial shrinkage is a contingency against which he needs to be prepared.

We must note the qualification at this point that not all fixed-income investors need be directly concerned with purchasing power. The liabilities of a bank, or a life insurance company, for example, are fixed in terms of dollars, and thus their managers' primary concern is safety of their investment portfolios in terms of dollars, not in purchasing power. The depositors and the policyholders, whose money is being indirectly invested, assume the bulk of the purchasing power risk.

The investor in equities, in respect to purchasing power risk, is in a position roughly opposite that of the investor in fixed obligations, for he possesses a share in the *ownership* of property, as contrasted with the creditor's fixed money claim. The value of the property he owns tends to change in harmony with broad long-term movements in the level of commodity prices, so that his purchasing power thus *tends* to be maintained. Whether in actual practice it is fully maintained, shrinks, or increases depends, naturally, on numerous other factors in addition to changes in the "commodity value" of the property he owns. As we know, the real value of his property lies in its ability to earn him an income rather than in its cost of reproduction, and influences that affect earnings and dividends are ordinarily dominant.

It is true that rising commodity prices usually increase the profits of industrial and commercial enterprises and that falling prices tend to narrow them. Not only does the gross money volume of business grow with rising prices, but also profit margins in many businesses tend to widen because of inventory profits. These tendencies are the basis for a general acceptance of common stock investments as the natural hedge against rising commodity prices. We shall examine the justification for this belief more critically later, but in the meantime it will be well to suggest here that the purchasing power of the variable income payments and market prices of common stock investments cannot reasonably be expected to move by any means automatically or directly in response to commodity price movements.

This Risk Essentially One of Change in the Unit of Measurement of Debt. It is important to grasp the fact that, for the investor, this risk is basically different from the hazards affecting solvency and profitability which we have been discussing. This is also a threat to the safety of the investor's capital, but it is from another quarter and in a very different form. The purchasing power risk is essentially *risk of shrinkage in the unit of measurement of financial obligations.* Purely external, it threatens to reduce the value of all fixed commitments, regardless of their safety in terms of *numbers* of money units due.

Such risk of shrinkage in the unit of measurement is primarily long-term. It may sometimes take effect rapidly, but intelligent treatment of the risk requires its consideration on a long-range basis. Though every business cycle is accompanied by swings of greater or less severity in commodity prices, such swings are temporary and are distinct from risk of a major shift in the general price level which would affect the investor for an extended period. Cyclical movements in prices are more properly treated along with other cyclical risks. True, such temporary movements do alter purchasing power, but, narrowly interpreted, the purchasing power of money varies every day. There are practical limits to the extent of protection of purchasing power which may feasibly be undertaken by the investor, or for which there is any real need.

As we have already pointed out, investment by its nature cannot, except under extraordinary circumstances, be concerned simply with preservation of purchasing power, but must also look for an income return. Monetary conditions so unsettled as to require continued primary attention to such preservation discourage investment activity and lead to hoarding of purchasing power in the idle form of precious metals and jewels, as has long been the practice in certain oriental countries.

Although shrinkage in the value of money necessarily affects the investor through a rise in commodity prices, the causes at work behind fluctuations in the price level are extremely varied and complex. No attempt at a comprehensive analysis of them is feasible here, nor, as a matter of fact, is it necessary. Our problem is not to explain why such movements happen or to conjecture how they may be foretold, but rather to consider on the basis of experience their importance to the investor—the frequency with which they have occurred and the degrees of change which they have brought. The investor must determine the weight they deserve in his individual program and examine what measures he may take to protect himself against them.

Since the problem of protection will vary with different types of price movement, we may profitably inquire into the more significant differences. The principal distinction of value in this respect is between *inflation of commodity values* and *debasement of the currency,* though we do not mean to intimate that these two forces, and others, may not often operate at the same time.

Inflation of Commodity Values. This distinction is essentially between price advances brought on through a wave of unusual prosperity or otherwise inflationary demand and supply conditions and those developing as a result of financial strain. Though the consequences in terms of commodity prices are similar, the question is whether emphasis is on an increasing value of commodities or on its reverse side, a depreciation in the value of money. Such distinction may at first appear artificial, but it is of practical service in determining methods of protection for the investor, for the reason that the desirability of ownership of equities as a hedge against a rising price level depends more on the profitability of enterprise than on the rising nominal value of property.

The forces embraced under inflation of commodity values are closely related to cyclical forces of expansion. They include such normal cyclical phenomena as rising industrial production and commercial activity, demand for goods and services in excess of the available supply, an increasing quantity of bank money, and more rapid turnover of the existing supply of money of all kinds. They also include long-range influences such as an increasing supply of monetary metals or a more effective employment of existing supplies. Though there is no connotation of soundness in an inflation of commodity values, we must recognize a distinction between gradual depreciation in the value of money through an increase in the supply of precious metals and outright debasement or the rapid loss of value possible when fear is aroused over the soundness of a fiat currency.

A large proportion of the instances of serious price inflation have been associated with wars, owing to the extraordinary economic impact of wars waged on a large scale. In the United States, there have been five important noncyclical instances of such inflation since 1800, of which four have accompanied wars. Representative indices of wholesale commodity prices show that such prices (somewhat more volatile than retail prices and the cost of living) more than doubled at the time of the Civil War and of both World War I and World War II. The short war of 1812 brought a 50 per cent rise on top of a generally high price level which had prevailed throughout the long period of the Napoleonic Wars in Europe.

The earlier war inflations in the United States were of relatively brief duration, and each was followed by a similarly sharp downward readjustment in prices. The advance held only so long as the strongly expansive extraordinary influences on demand and supply endured. Also, especially during the Civil War, uncertainty over the future stability of the government and its currency unit played some part in the inflation. The total loss in value sustained by the Confederate currency is an instance where inflation rather than demand and supply factors eventually became all-important.

The other major non-cyclical advance in the price level during this period in the United States came in the years 1897–1910, following the long deflationary trend which had existed since the Civil War. Wholesale prices during these years rose more than 50 per cent. Unlike the war inflations, however, the rise was gradual. Moreover, though the advance was checked in 1910, there had as yet been no real indication of reversal in trend when the impact of World War I began to force prices markedly upward in 1915.

Debasement of the Currency. Advances in the level of commodity prices due to deliberate reductions in the value of the currency unit have been more common than is generally realized and have been more enduring than advances brought on by the stimulating forces we have mentioned. Financial history records a long succession of reductions in the metal content of the various money units employed. Infrequently, increases have been decreed, but the long trend has been one of reductions. In most instances, such debasement has been the consequence of financial embarrassment on the part of the money-issuing authority. That is, finding itself heavily in debt through war or other prolonged extravagant spending, and with its revenues currently insufficient to meet its enlarged expenditures and to service the debt, the governing authority in question had faced the alternatives of complete repudiation of its debts, downward revision of them, or heavier taxation and possible revolt. Sometimes, also, debasement was undertaken to still popular discontent over existing taxes or an excessive burden of private debt.

In the past two centuries, as the use of paper currency and bank deposits has developed, the form of debasement has changed. It has become usually "involuntary" in the sense that the metallic currency unit (or standard) has been reduced to take recognition of an already existing depreciation of the circulating paper currency, brought on by an excessive issue of this money in proportion to the metallic reserve ordinarily maintained to assure its redemption. Such fiat money is simply non-interest-bearing debt of the issuing authority, and an excessive amount may necessitate scaling down or even repudiation.

It is the effect of currency debasement on the price level, of course, which is of primary concern to the investor. When monetary and banking systems were more primitive, and transactions were effected mainly through transfer of metallic coin, the effect of currency debasement on the level of prices was relatively direct. Actual reduction in the content of precious metal in the unit of measurement tended to produce an approximately corresponding rise in commodity prices. In the more complex modern world, however, the effects are often indirect and obscure. When circulation is made up entirely of inconvertible paper money, the theoretical metal content of a nation's monetary unit may have little effect on the internal price level, other than through stimulation of production of the metal and through international trade and capital movements.

Owing to general acceptance of the gold standard, with paper money convertible into gold and with fixed weights of gold in each currency unit, and because of the importance of international trade, currency debasement for long brought compensating rises in commodity prices despite the general use of paper money. At present, however, with inconvertible paper money or fiat subsidiary coins employed almost exclusively, with international transactions restricted and regulated by governments, and with governmental agencies with large resources devoted to controlling foreign exchange fluctuations so as to lessen the impact of such changes on internal price levels, there is a large element of unreality in the metallic coins still nominally acting as standards of value. It is not surprising that much doubt exists about the degree of relationship to be expected between alterations in currency units in terms of monetary metals and movements in the price level.

Despite the uncertain influence on prices of currency debasement under present monetary systems, it is pertinent to note the extent of some past examples of devaluation. Looking briefly into history, we find that the British pound sterling, relatively an extremely stable currency, was debased periodically after the year 1276 until it contained less than one-third of its original quantity of silver at the time the gold standard was formally established in 1816. The British gold currency was debased to about one-fourth of its original value during the same period. Neither of these depreciations, however, when spread over more than five centuries, was large enough to justify serious attention in an investment program. On the other hand, the experience of France was a very different matter: at the time of the French Revolution, the livre had been reduced to one seventy-eighth of its original value in terms of the principal monetary metal, silver.

Recent examples of debasement have tended to be more serious than earlier instances. For example, the United States dollar was arbitrarily devalued 41 per cent in 1933–1934, a greater debasement than any that had occurred in the British currency on any single occasion between the Conquest and 1931. The severity of recent instances of currency depreciation in all countries has been heightened because of the increasing importance of paper and bank money. Unlike metallic money, paper currencies, as was demonstrated in France at the time of the *assignats,* and in Russia, Austria, and Germany after World War I, may become completely valueless.

French Post-war Depreciation. Two examples of involuntary currency depreciation, those in France and Germany accompanying and following World War I, have particular application to our discussion because they occurred recently in important and economically advanced nations, because they took divergent courses, and because considerable information is available about their effects on investments.

French "inflation" during and after World War I was the direct product of huge governmental deficits which piled up a burden of debt greater than France was able to bear. Indirectly, it was the result of vast expenditures necessitated by war and then by reconstruction, coupled with the inability or unwillingness of the French parliament to levy taxes heavy enough to balance these expenditures. The inflation continued until the franc had depreciated and commodity prices had risen to a point where the government was able, through a courageous increase in taxes, to balance its budget and to restore confidence that it would be able to meet its obligations. The depreciation was not deliberate on the part of the government; it resulted simply from realization by the public that the enormous debt created could not be repaid with francs on the old basis.

When stabilization was effected in 1927, the 1913 franc of 19.3 cents in terms of gold had shrunk to 3.9 cents, or 80 per cent. Wholesale commodity prices in terms of paper francs had risen 522 per cent since 1913, and the cost of living, 424 per cent. The investor found that bond prices, in terms of paper francs, had fallen 34 per cent, and that prices of common stocks had risen only 165 per cent, far less than the cost of living. Moreover, the performances of different groups of stocks were extremely divergent, their prices moving primarily in response to diverse trends of profits and dividends. All the measures cited were notable for their erratic movements between 1913 and 1927, the period being characterized by sharp temporary reversals of trend.

German Post-war Depreciation. The German depreciation during this period, which was exceptional in the extremes it reached, was an illustration of the combination of unfortunate circumstances rather than a typical experience, though in its early stages it was not dissimilar from the French. Complete economic exhaustion and the added burdens of defeat, however, following World War I led to a rapid expansion of fiat paper currency that progressed geometrically and hopelessly until in 1923 the German mark, valued at 23.8 cents in terms of gold in 1913, became absolutely worthless and was succeeded by a temporary currency based on landed property until a new gold currency system could be set in operation.

The results of bond and stock investment in Germany varied tremendously both during the inflation period and upon revaluation. Some bonds were paid off in depreciated currency and so were lost, while others were not disturbed and were assumed by their issuers at the end of the period on a basis giving them substantial value. In general, bondholders, despite preferred treatment in revaluation, lost most of their investment and practically all their income during the years of worst depreciation. Shares of common stock advanced greatly in many cases, but many companies also were bankrupted, and in the end the position of the average investor in common stocks appears to have been no more satisfactory than that of the investor in fixed-income securities.

No Simple Method of Protection. Reference to these and other past experiences suggests that one is unlikely to find any simple and dependable formula for protection against purchasing power risk. For the average investor, proper treatment of the risk will probably continue to present a confusing problem, despite the great amount of investigation and discussion which has centered around it in recent years.

Most investors attempting its appraisal have been troubled by the diversity of the forces which may bring about changes in the price level, and by the failure of major changes which have occurred in the past to conform to any certain pattern or to produce consistent results on investments. Satisfactory prediction of long-range price movements appears to have been surprisingly rare, and even when the trend of change has temporarily seemed clear there has been little success in estimating its ultimate extent.

The most important source of confusion in investment policies designed to offset this risk, however, is to be found in its basic challenge concerning what *safety* of invested capital should imply. Should it mean nominal safety in terms of money, or should it mean safety of purchasing power? This question is vital for the reason that purchasing power risk threatens primarily the securities otherwise viewed as the safest, those strongly protected fixed obligations whose interest payments and ultimate retirement of principal are best assured. The investor who values his income in terms of the goods and services it will purchase thus faces the troublesome fact that those securities which he finds least vulnerable to the other major risks we have considered are completely at the mercy of a radically different danger. Moreover, the more obvious steps offering protection from the latter hazard expose him to increasing danger from the other risks. In practice, some policies advocated to offset purchasing power risk involve operations clearly riskier than neglecting it altogether.

It is helpful in appraising this risk to emphasize that, after all, when viewed in proper perspective, examples of inflation and debasement such as we have cited have been infrequent and abnormal developments. This means that from the standpoint of the investor the possibility of their occurrence is ordinarily secondary in importance to other risks that are both vital and continuing. As a matter of fact, not only are major advances in the price level infrequent, but also they are often of brief duration; whereas sometimes the more permanent changes develop slowly enough so that gradual readjustment to new prices is relatively painless.

This classification of purchasing power risk as ordinarily a secondary consideration for the investor does not mean that it may be disregarded. Such risk is serious when it does materialize, and when there exists any tangible basis for its anticipation, such as a condition of war or of extremely unsound governmental finance, it undoubtedly deserves primary attention. In periods when no such case can readily be made out, it naturally requires less emphasis, though widely differing views are held as to what this degree of emphasis should be under normal conditions.

In setting up an investment program the actual weight accorded the risk will obviously, as with other risks, have to be determined with relation to individual circumstances, especially the size of the individual's resources and the importance to him of investment income. Clearly, it is not possible for us to lay down any fixed rules. As we noted earlier, some classes of investors, such as banks and life insurance companies, owing to their position as financial middlemen, may largely ignore the risk, but on the whole investors have no such choice.

Because purchasing power risk materializes usually only at long intervals and yet may be extremely serious to investors when it does occur, provision for protection against it in a long-range investment program requires a divided approach. On the one hand, we need to provide as a usual practice some degree of protection against its unexpected development; on the other, we need to consider possible additional safeguards in the event the danger appears especially grave or imminent, as in time of war or extreme financial derangement.

Methods of Protection Not Involving Prediction. We have pointed out the perverse nature of purchasing power risk—that it threatens most seriously securities otherwise the safest, and that issues relatively safe from it involve greater risks in other respects. This unfortunate characteristic makes difficult any really adequate program of protection against it as a long-range policy, especially for the investor who wishes a minimum of risk in total. Still, although a high degree of protection is seldom practical in normal times, there are methods of partial protection which may not increase other hazards excessively. Such methods are based on hedging or diversification rather than primarily on prediction of the future. Three general approaches are commonly employed.

(1) One approach is through diversification of investments internationally, or in other words, diversification among different currencies. This is an obvious approach, and one that has long been employed to hedge against investment risks. Such diversification may prove of limited value for this particular purpose, however, since in the modern world major commodity price movements are world-wide, and currency depreciation tends to spread. Moreover, political hazards have grown in recent years to be major stumbling blocks in the way of successful international investment of any sort.

(2) A second approach is through purchase of securities of special classes designed to offer the relative safety of a fixed senior obligation in combination with a measure of protection of purchasing power. Such securities fall mainly into two classes, "gold bonds" and bonds or preferred stocks with conversion or participation privileges. Gold bonds are made payable in currency units of a specified weight of gold of a certain fineness, as a direct protection against debasement, but experience indicates that the provision may be of little practical value. When put to the test after the debasement of 1933–1934 in the United States, operation of this "gold clause" was effectively blocked through decision of the Supreme Court. A few securities offering payment at the holder's option in one of two or more currencies have been available, and an attempt has been made also to popularize securities whose interest payments and principal value would vary in accordance with an index of purchasing power. Should such securities become available in quantities sufficient to make their employment practical, the question would arise whether their con-

tracts would prove any more enforceable in a crisis than did the gold clause.

Privileged issues, or bonds or preferred stocks which offer the privilege of conversion into common stock on a fixed basis, the option of purchase of common stock at a certain price, or an opportunity to participate in earnings beyond their fixed minimum, in theory possess much attraction as hedges whereby a senior position may be maintained for purposes of safety and yet a contingent ownership interest may be held in order to benefit should an increase in the profitability of operations or a decrease in the purchasing power of money raise the valuation of the common stock. On the right terms, such an arrangement might be highly advantageous to the investor. Unfortunately, senior securities are ordinarily designed by and for the benefit of the equity holders rather than the creditors, and privileges are usually only included, as was pointed out earlier, in order to sweeten an issue that might not otherwise prove readily salable. Also, there are relatively few such issues of high quality, and most of these have been made redeemable at prices so low as to eliminate most of the opportunity for gain. Practically, it must be recognized that as soon as any such issue advances in price materially beyond its fixed principal value it has become in large measure nothing but a common stock and is subject to essentially the same hazards.

(3) The most practical and the most widely adopted method of hedging against fluctuations in the price level is through diversification of investments between creditor securities and ownership securities. Protection of purchasing power is a main purpose of the "balanced" investment program, which seeks to balance holdings between bonds or other fixed obligations and equities in a proportion compatible with the individual circumstances of the investor. Bonds are relied on for protection against periods of economic deflation when stock prices and dividends decline, whereas the stocks owned are expected to advance in price and to increase dividends during an inflationary period.

The soundness of this general approach and the value of such diversification with respect to a number of investment risks is not usually questioned. Its success in any individual instance, however, is heavily dependent on the judgment used in determining appropriate proportions of the two types of securities and on the restraint and shrewdness employed in selecting individual equity holdings. Just as there will be bonds that will suffer more than the average common stock during a period of deflation, so will there be common stocks less advantageous to own in an inflationary period than the average bond. For example, ownership of common stock in public utility enterprises might be undesirable during an inflationary period because of the probability that costs would rise more rapidly than the rates which the companies would be permitted to charge their customers. No one can afford to assume that every type of physical property will appreciate with the general price level or that earning power will not remain the dominant factor in the valuation of common stocks.

In normal times, when purchasing power risk is judged of secondary importance, a relatively minor proportion of equity ownership might be viewed as adequate protection, though an additional proportion might be desired for other purposes. Whenever common stocks are included in an investment program, an increased element of long-range prophecy creeps in, and it is necessary to be aware of the many other risks, cyclical especially, which must be considered. Selection of common stocks purely with an eye to their value as hedges against inflation is likely to slip easily into the grossest speculation, for the most marginal securities naturally stand to benefit most heavily from an inflationary trend.

Methods of Protection when Abnormal Danger Is Seen. Intelligent application of any investment policy requires a flexibility to permit gradual adaptation as circumstances change. Such flexibility is particularly important with respect to the risk we have been discussing, since because of its infrequent occurrence we cannot provide as a usual practice the degree of protection that is called for when it actually develops. Realizing the great difficulties in the way of successful prediction either of changes in the price level or of the manner in which individual securities may react to them, the investor should still find it possible to recognize conditions under which the hazards of price change are unusually great.

If conditions of unusual hazard are believed to exist, normal policies will naturally be altered to permit provision of more thorough protection, though the wise investor will endeavor to refrain from jumping to conclusions on merely preliminary evidence and will do well to shift his program only gradually, as an extra precaution, for heavy emphasis on such protection may be costly if his appraisal is faulty. The conservative investor will, of course, persist in a policy of at least limited diversification, even if the outlook appears perfectly clear, and will refrain from a complete shift in any direction.

How may the investor act to protect himself in the event he is satisfied that purchasing power risk is becoming serious? His first step, necessarily, must be to analyze the character of the underlying forces, the forces which have convinced him that the level of commodity prices is going to advance. Are an active demand for goods and a high rate of production forcing prices up? Has the banking system created more purchasing power than there are goods available? Is there the extraordinary demand of a great war? Is a great burden of debt leading toward a voluntary lightening of the burden through currency depreciation? Or is it leading perhaps to national bankruptcy? What are political conditions, especially with reference to the degree of control likely to be exercised over prices?

Since the ingredients of price movements are never identical and are sometimes radically different, the effect on security prices and income payments is likely to vary greatly. Fundamentally, there is no reason why *any* particular form of securities or of property should maintain its purchasing power through all such periods of economic ill health. Past experience gives strong evidence that there is no sure form of protection, and in the more spectacular instances of depreciation it has demonstrated that virtually everyone loses. Protection then becomes a rapidly shifting individual problem in which success favors only a few of the alert, the shrewd, and the lucky.[1]

One of the most successful methods of hedging against currency debasement in the past has proved to be hoarding of the gold or other precious metal employed for the currency unit. Unfortunately, this practice is legally no longer possible in many countries, including the United States. Moreover, hoarding of gold offers no protection at all against an advance in the price level not associated with debasement, and it involves a complete loss of income as long as it is held. It is possible, of course, to hoard jewels or other commodities if they are not perishable or expensive to store. The success of this practice depends heavily on prediction of commodity values and on taxing policies or price-fixing policies which may be determined upon by the government.

Ownership of farm land or other real property has afforded good protection in the past in many instances. For the average investor, however, it brings in many complicating factors of management, taxation, price fixing, rent fixing, and other phenomena typical of inflationary periods.

Purchase of common stocks, representing equity ownership of real property, has been widely advocated as a hedge similar in effect to direct purchase of real property, but requiring vastly less attention and affording greater safety for small investors because it permits a wider diversification of business risks. A natural action upon recognition of increasing purchasing power risk has been for the investor to reduce his holdings in fixed obligations and shift funds toward common stocks. If the risk is great, concentration of investment holdings in this medium has been urged.

Common Stocks No Certain Solution. Concentration on common stocks for this purpose, however, though probably the soundest course available to most investors, is not so easily justified nor so simple a solution as might appear on the surface. We have already pointed out that there is no reason at all why the price of common stocks need respond automatically in proportion to debasement of the currency. There is more reason why equity earnings and prices should advance substantially during a period of inflation of commodity values accompanied by general prosperity, but we know that the effects on individual issues vary greatly, some even declining during such a period as a consequence of operating problems.

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[1] See Frank P. Stockbridge, *Hedging against Inflation*, Barron's, New York, 1939.

French investors owning common stocks, who had suffered seriously in purchasing power during World War I, found in the post-war inflationary period, 1919–1927, that prices of their securities *on the average* kept pace roughly with the cost of living, which more than doubled. Yet their individual experiences were most diverse. Holdings in many prosperous industries advanced more than did living costs or wholesale prices. Securities representing less favorably situated industries, on the other hand, actually declined in price during the period.

Employment of a large proportion of common stocks for the purpose of protecting against a purchasing power risk believed to be unusually great is essentially investment for appreciation, based on prediction of future developments. Moreover, it is investment for appreciation under highly abnormal conditions, when accepted rules do not hold, and when investors need to re-examine operating hazards and possibilities of governmental regulation and taxation. During such a period of appreciation, if it develops, and especially at the end of it, there are sure to be sudden and sharp declines dangerous to the investor heavily committed to stocks.

The failure of common stocks, even as a class, to move consistently in harmony with commodity price trends has been illustrated on many occasions in the past. For example, the large portion of the wartime and post-war price inflation occurring after 1916 produced little net advance in stock prices in the United States, because American entrance into the war had immediately changed the basis for profits. During the 1920's, the great stock market boom developed with no advance at all in the general price level, simply because other conditions were favorable. Again, the 50 per cent rise in commodity prices during 1946 and 1947 was accompanied by a general decline in stock prices.

Experience suggests, therefore, that, although common stocks may reasonably be employed to guard against loss of purchasing power, they must be carefully chosen with that purpose in mind, and, even then, there is considerable likelihood that their performance may be disappointing.

SUPPLEMENTARY READINGS

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Lagerquist, W. E., *Balancing and Hedging an Investment Plan,* Ronald, New York, 1941, Chapters 5 and 6.

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PROJECTS

1. Present a record of major changes in the cost of living in the United States since 1910. What investment policies would have served the investor best in each instance? As a practical matter, what extent of protection against shrinkage in purchasing power might the investor reasonably have expected?

2. To what extent is purchasing power risk present today? What steps, if any, do you advocate for the present time as measures of protection? What steps would you regard as futile?

CHAPTER 10 The Money Rate Risk

The Valuation Placed on Income Payments Varies with Money Rates. The central factor giving value to most securities, as we know, is the income return they provide or are expected to provide, along with prospective repayment of the principal, for obligations with fixed maturities. Naturally, the valuation that is placed by investors on a given income, or on a given principal sum to be received in the future, will vary according to the relative sureness that the payments will materialize. The extent to which the risks we have been discussing are present will have a major bearing, as will the degree to which investment sentiment is currently optimistic or pessimistic. In addition, however, the valuation may differ greatly from time to time entirely apart from considerations of intrinsic safety or even of investment sentiment, through changes in the rental value or productivity of capital, as measured by rates of interest for employment involving a minimum of risk. The long-time record of such interest rates, as we noted in Chapter 2, has been one of wide fluctuations.

Defined from the practical viewpoint, interest rates, including the investment yields obtainable on fixed obligations, are simply prices which are offered and accepted for the employment of capital and embrace varying but often substantial premiums for credit risks assumed. Though truly riskless loans do not exist, we may, if we wish to weigh the effect of shifts in the level of interest rates on investment values, employ as a basic measure of interest rates those rates and yields prevailing on obligations recognized as involving a minimum of credit risk. It will be convenient to refer to interest rates and yields of this class as "money rates." Securities believed to involve minimum risks are commonly known as "money rate" securities, to indicate that their yields may be expected to fluctuate closely in accordance with conditions of demand and supply in the capital markets. The fluctuations of such money rates will generally be indicative of the *trend* of other interest rates, though the relative levels of the others will vary widely and irregularly according to the size of the premium for risk that is included, the length of time before maturity of the obligation, and other factors we have pointed out elsewhere.

The extent of fluctuations which have occurred in yields on securities viewed as practically riskless is illustrated by the long-term course of yields on British Consols, portrayed in Chart 1, page 37. The chart shows that this issue has varied all the way from a 2½ per cent to a 5 per cent yield basis during the last fifty years. Similar fluctuations have occurred in the United States, as we have seen in Chart 3 (page 99). High-grade, long-term American railroad bonds, as measured by the Axe-Houghton index, sold to yield 3.72 per cent in May, 1902, 5.66 per cent in May, 1920, 4.15 per cent in May, 1931, 5.58 per cent in June, 1932, and 2.67 per cent in March, 1946. Yields on short-term securities of comparable safety have varied more widely still, owing to the greater influence on them of temporary conditions of banking ease or strain.

What changing money rates may mean to the investor in terms of the valuation placed on a fixed income is revealed by the fact that Consols sufficient to pay an annual income of £27½ were valued at £1,138 in 1897, £480 in 1920, and £1,038 in 1935.[1] On the basis of the yields we have indicated, a high-grade American railroad bond with a 4 per cent coupon and maturing in 50 years would have sold at $1,063 in 1902, $725 in 1920, $968 in 1931, $735 in 1932, and $1,366 in 1946.

Naturally, such fluctuations are more extreme for permanent obligations such as Consols[2] and irredeemable preferred stocks, or obligations of distant maturity, than for those securities where a relatively near maturity operates to steady the price. For example, we may take a perpetual income of $30 bought for $1,000 on a 3 per cent basis. If money rates were to rise to 6 per cent, the right to receive this income would be worth only $500. Should the income not be perpetual, but only for 50 years, with a promise to repay the $1,000 at the end of the period, the results would not be much different. Such an obligation would be worth $526 when valued on a 6 per cent basis. As the length of time to maturity becomes shorter, however, the present value of the principal sum to be repaid becomes greater, and the shrinkage in value caused by rising rates is less. If maturing in 25 years, the obligation would be valued at $614. If maturing in 10 years, it would be valued at $777; in 5 years, at $872; in 2 years, at $944; and in 1 year, at $971. We find in practice that long-term and short-term obligations are not usually valued on the same money rate basis, for different supply and demand factors enter in, but the relative stability in value we have demonstrated is nevertheless characteristic of short-term obligations.

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[1] Market value of £1,000 2¾ per cent Consols in 1897 and of £1,100 2½ per cent Consols in 1920 and 1935.

[2] Consols have been redeemable since 1923, but they have not closely approached the redemption price.

It is plain that money rates may decline as well as rise, so that an obligation bought on a 6 per cent basis may later be valued at 3 per cent, to the substantial profit of the owner. However, generally speaking, investors in obligations whose prices primarily reflect money rates are not in search of profit, but are mainly concerned with obtaining income with a minimum risk of loss. Furthermore, the practice of setting call prices only 5 or 10 per cent above the principal value of long-term obligations has greatly reduced the possible extent of such profit.

Money Rate Risk Not Important to All Investors. Though we have labeled the problems arising from major shifts in the level of interest rates and investment yields as *money rate risk*, it is true that no threat to the safety of the securities concerned is suggested, the risk involving mainly changing *market values* and possible inefficient employment of capital. It is, first, the risk that rising, or "firming," money rates will reduce the valuation placed on a fixed obligation, and, second, the risk that income from long-term investments made on the basis of existing money rates will be found to have been frozen at a needlessly low level. As a matter of fact, for those classes of investors to whom current market valuation is of only slight concern, so long as income continues and ultimate return of the principal is assured, the chance that money rates may rise materially is not truly a risk of loss. Instead of a loss of actual capital or income, it involves only a loss of nebulous income that might have been had management been more astute. Such investors must arrange, of course, for their investments to mature at some date before the market's valuation of them is likely to become of real importance, but so long as the obligations do mature and are paid off within this period, whatever it may be in the individual case, these investors may well pay slight attention to money rate risk.

Relatively few investors, however, are able to disregard completely the market value of their investments, for even the best-laid, long-range program may be disrupted by a need for partial liquidation at an unfavorable period. Important groups of investors, too, such as banks investing funds subject to withdrawal on demand and industrial corporations investing working capital reserves, are obviously in a vulnerable position if their holdings are long-term obligations. A change in interest rates that lowered the valuation of such securities sharply, even if plainly temporary, might be of serious concern to them.

For investors in equities, the money rate risk also has significance, since the basis on which anticipated income from equities is valued is at least related ordinarily to the basis on which fixed incomes may be obtained. Both the price-earnings ratios and the current yields obtainable on common stocks *tend* to be influenced by prevailing money rates. Yet the money rate risk is minor when compared with other risks and uncertainties facing the investor in any but the most stable and predictable equities, and it is therefore worthy of only brief notice as a separate factor. Money rates from the standpoint of the equity investor are best treated merely as one of several ingredients determining the ratio to earnings and dividends on which a given security will be valued at a given time.

Whether or not the money rate risk we have outlined is of major importance to an investor, the question of determination of what income may be safely secured is at the heart of most investment problems, even the problem of the average investor in equities. If methods helping to avoid depreciation caused by rising interest rates or to assure more effective employment of capital are available, their consideration will assuredly be useful to the investor.

Major Change in Long-Term Money Rates Infrequent. In calling attention to the presence of this risk and its importance to many investors, we do not wish to convey the impression that long-term money rates are continually gyrating, or even necessarily moving either up or down. On the contrary, there have been long periods in the past when little change has occurred, when fluctuations have taken place within relatively narrow limits and no clear trend has been visible. Changes in short-term money rates had until recent years been frequent and sharp, but this has not been typical of long-term investment yields, which are the money rates of primary importance to investors. Reference again to Chart 1, the chart of prices of British Consols, will illustrate this point, and a study of experience with yields on money rate bonds in the United States will support the same conclusion, though the varying impact of wars and the immaturity of our economy and relative inadequacy of capital supply prior to World War I have led to a different pattern of fluctuations. Although experience demonstrates the reality of money rate risk, it also suggests that this hazard will materialize to a serious degree only infrequently.

At this point, it is necessary to emphasize again the diverse nature of the many classes of interest rates and investment yields which exist, both on money rate obligations and on securities embodying greater risks. Although, for example, the yield on money rate obligations rose with relative moderation during the financial strain of 1931–1932,[3] the yields on obligations of lesser quality rose tremendously. It is natural that yields on money rate obligations should fluctuate over a less wide range than other yields, because of the lesser weight put on the many additional variables reflecting credit risk.

At the same time, though the yields of riskier securities, fluctuating over a wider range, will in the long run move in harmony with money rates, it is by no means impossible for such yields to move temporarily more narrowly or in an opposite direction. This is because they are influenced heavily by factors of risk and of optimism or pessimism regarding the future which diminish or increase independently of money rates. Thus, a wave of industrial prosperity which, by absorbing all available liquid capital, forces money rates up and prices on "money" bonds down may temporarily so strengthen the position of a lower grade bond that its price will improve and its yield diminish.

This tendency of prosperity to force inferior obligations near a position of equality on a yield basis with prime bonds constitutes a common pitfall for the investor who unwarily places excessive reliance on market valuations as indications of quality. Table 6 gives striking evidence of the degree to which prosperity may narrow and adversity widen the gap between different grades of obligations. (The spread between yields on high-grade and medium-grade obligations is, in fact, often employed as an index of "investment confidence.") The quality ratings and the averages of yields shown are those of Moody's Investors Service, "Aaa" being the highest grade.

Short-Term Rates Fluctuate Differently. As we noted earlier, numerous other factors besides credit risk influence the relative yields of bonds. Tax-exemption privileges are one factor, and marketability, legality, conversion privileges, and nearness of call prices are others. Other things being equal, the coupon rate a bond bears will have some influence, for bond buyers tend to be more cautious in bidding up an issue selling above maturity value than one which is selling at a discount. After credit risk, however, the most important element causing yields on fixed obligations to differ is the relative nearness of maturity. Short-term obligations have in recent years returned a far smaller yield than long-term obligations of identical quality. Looking back over a longer period, we find that no important discrepancy in average yields appeared to exist formerly between obligations with early or distant maturities, but that

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[3] The yield on high-grade long-term public utility bonds, which at that time supplanted railroad bonds as the prime corporate obligations, rose only from 4.24 to 4.93 per cent (index of the *Annalist*).

TABLE 6

Annual Average Corporate Bond Yields by Rating Groups *

(in per cent)

Year	Yield on Aaa Bonds	Yield on A Bonds	Yield on Baa Bonds	Spread between Yield on Aaa and Yield on A	Spread between Yield on Aaa and Yield on Baa
1919	5.49	6.48	7.25	0.99	1.76
1920	6.12	7.41	8.20	1.29	2.08
1921	5.97	7.28	8.35	1.31	2.38
1922	5.10	6.03	7.08	0.93	1.98
1923	5.12	6.17	7.24	1.05	2.12
1924	5.00	5.93	6.83	0.93	1.83
1925	4.88	5.55	6.27	0.67	1.39
1926	4.73	5.24	5.87	0.51	1.14
1927	4.57	5.04	5.48	0.47	0.91
1928	4.55	5.01	5.48	0.46	0.93
1929	4.73	5.28	5.90	0.55	1.17
1930	4.55	5.13	5.90	0.58	1.35
1931	4.58	6.01	7.62	1.43	3.04
1932	5.01	7.20	9.30	2.19	4.29
1933	4.49	6.09	7.76	1.60	3.27
1934	4.00	5.08	6.32	1.08	2.32
1935	3.60	4.55	5.75	0.95	2.15
1936	3.24	4.02	4.76	0.78	1.52
1937	3.27	4.01	5.03	0.74	1.76
1938	3.19	4.22	5.80	1.03	2.61
1939	3.01	3.89	4.96	0.88	1.95
1940	2.84	3.57	4.75	0.73	1.91
1941	2.77	3.30	4.33	0.53	1.56
1942	2.83	3.28	4.28	0.45	1.45
1943	2.73	3.13	3.91	0.40	1.18
1944	2.72	3.06	3.61	0.34	0.89
1945	2.62	2.87	3.29	0.25	0.67
1946	2.53	2.75	3.05	0.22	0.52
1947	2.61	2.87	3.24	0.26	0.63

* Source Moody's Investors Service, New York.

short-term issues were subject to particularly wide variations in yield. Because of nearness of the date of repayment of principal, of course, a sharp change in their rate of yield may mean only a negligible percentage change in their market valuation.

The principal characteristics that cause short-term money rates to fluctuate differently from long-term rates arise from the nature of the supply of short-term capital and the demand for it. Whereas long-term money rates normally might reflect the relationship between the supply of savings and the demand for capital for long-term investment in plant and equipment, short-term rates would reflect the relationship between banking resources and the demand for bank credit, mainly for the purpose of financing current inventories and receivables. The volume of short-term corporate securities is small, consisting mainly of former long-term issues now nearing maturity, and the yield on these issues is dominated by the rate on competitive short-term banking assets, including government paper. Thus, the yield on short-term obligations tends to move in accordance with conditions of banking ease or strain. Conditions of strain, though usually temporary, have often been so intense as to cause violent increases in this type of money rate. Likewise, conditions of ease in the banking system may, as in recent years, become so pronounced as to cause equally extreme low short-term rates to prevail.

Naturally, many obligations with intermediate maturities cannot truly be classed with either short-term or long-term issues, but may reflect the characteristics of both. The length of maturity regarded as short-term will vary considerably in the light of individual purposes and circumstances, though ordinarily two years might be regarded as the maximum beyond which an obligation would begin to lose its short-term character. Obligations with intermediate maturities are useful to the investor who desires to avoid the problem of frequent reinvestment or is not satisfied with the return obtainable upon short-term issues, yet still does not wish to assume the full risks of price depreciation on longer issues.

Success in Forecasting Money Rates Improbable. The possibility that the average investor will be able successfully to anticipate major changes in the level of long-term money rates does not appear to be much greater than the likelihood that he may succeed in forecasting changes in the purchasing power of money. He must weigh the interaction of a similar complexity of conflicting forces, both tangible and intangible. These include the policies adopted by governmental agencies in the exercise of their increasingly important direct and indirect controls over money rates.

As a matter of fact, considerable correlation has been noted in the past between major movements in money rates and in commodity prices, though the causal relationships are in dispute. Capital requirements of business increase, of course, when commodity prices rise sharply, but there are many other pertinent factors. For one thing, bond yields tend to rise in a long period of rising costs of living simply because of the unfavorable experience of investors who have been receiving fixed incomes during such a period and their natural tendency to project ahead the trend of diminishing purchasing power.

A major factor in fluctuations of short-term money rates is the business cycle, with its alternating periods of active demand and of liquidation and stagnation in the money markets, but purely cyclical developments have generally had only moderate effect on yields and prices of prime long-term investments.[4] Some insulation against usual cyclical influences is afforded yields of this class by the tendency of investors to place funds in the safest issues during periods of panic and depression and to withdraw them in search of greater returns during periods of optimism and prosperity.

A classic illustration of the fallibility of attempts to forecast the trend of money rates is the symposium of forecasts, made by prominent financiers in 1899 at the request of the Equitable Life Assurance Society, which has been reproduced by Dwight C. Rose.[5] In 1899, these experts advanced the almost unanimous opinion that yields during the succeeding twenty years on investments of a quality suitable for life insurance companies might be expected to average even lower than yields then existing, already the lowest on record in this country. Looked at in retrospect, of course, their predictions were amazingly in error. Institutions which tried to protect their income against the declining trend of investment yields through large purchases of 100-year bonds at rates then prevailing had occasion to regret their action for many years thereafter.

Numerous other less spectacular instances of unsuccessful prediction might be cited. The point, however, is not that successful prediction of long-term money rates is impossible, for it has been accomplished in some instances, but that a heavy degree of reliance on such success in any particular case is not justified. Various statistical measures have been developed from time to time which purport to relate supply and demand factors and to forecast the trend of money rates with reasonable accuracy, and some of these have had excellent records for brief periods, or even for long periods when employed in retrospect. Yet in the end such a measure when well publicized tends to defeat its own purpose. Simply because there must be both buyers and sellers in a market, it is physically impossible for any substantial percentage of investors successfully to anticipate changing trends.

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[4] By "moderate," of course, is meant moderate from the viewpoint of the average investor. A price depreciation of even 10 per cent, resulting from an increase in yield on a 4 per cent 50-year obligation from 4 per cent to 4½ per cent, could be disastrous to some investors.

[5] *A Scientific Approach to Investment Management,* Harper & Brothers, New York, 1928, pp. 269–300.

What Rates Are Normal? If forecasting of trends in long-term money rates is likely to prove unreliable, might not a sound basis of approach be through the determination merely of whether rates are high or low, of whether they are above or below normal? Should some rough concept of normal for such money rates be practicable, we would have at least a basis for estimating the relative vulnerability to change of the rates existing at a given time, without attempting to predict when change might occur.

Unfortunately, in the United States we do not have available any adequate basis for calculating such a normal rate. Historical records of our money rates are of questionable value in this respect, for we remained a rapidly developing debtor nation until World War I, and we have since been in the throes of an extraordinary boom, a devastating depression, another war, and another boom. Only for a short period have we been the mature creditor nation we now are, with supplies of available capital bulking large in proportion to opportunities for its employment, and the yields prevailing in earlier times are of limited current significance.

One approach we may make, however, is to note the average yields that have existed during periods of relative stability. Three such periods were the decades immediately preceding World War I, the decade 1922–1931, and the years 1936–1940. Table 7 reproduces indices of average January yields of high-grade American railroad bonds and of New England municipal bonds for the years 1880–1914, published by the National Bureau of Economic Research. The table reflects incidentally the shifting relative credit rating of the two classes of bonds, but also supplies us with averages of 4.08 per cent and of 3.62 per cent, respectively, for the yields on railroad and municipal issues for the two decades just prior to World War I. During this same period, average yields on United States Government bonds were less, fluctuating between 2 per cent and 3 per cent, but these bonds were outstanding in a relatively small amount and possessed special privileges as collateral for national bank currency.

We have referred before to the rise in money rates associated with World War I and to the generally extraordinary financial conditions of the 1920's. For what it may be worth, however, we may point out that yields on high-grade railroad bonds, measured by the same January index, held within the range of 4.187 per cent and 5.011 per cent for the

TABLE 7

Yields of American Railroad Bonds and New England Municipal Bonds, 1880–1914*

(January index numbers, in per cent)

Date (January)	Railroad Bonds	Municipal Bonds
1880	5 824	4 199
1881	5 194	3 843
1882	5 242	3 700
1883	5 205	3 621
1884	5 149	3 651
1885	5 076	3 595
1886	4 643	3 422
1887	4 564	3 407
1888	4 643	3 735
1889	4 499	3 589
1890	4 472	3 336
1891	4 622	3 646
1892	4 577	3 657
1893	4 531	3 613
1894	4 547	3 665
1895	4 310	3 470
1896	4 331	3 705
1897	4 222	3 435
1898	3 996	3 307
1899	3 859	3 121
1900	3 923	3 198
1901	3 824	3 081
1902	3 810	3 170
1903	3 918	3 250
1904	4.035	3 469
1905	3 885	3 398
1906	3 912	3 505
1907	4 065	3 760
1908	4 316	4 231
1909	4.058	3 879
1910	4 116	3 893
1911	4 174	4 007
1912	4 187	4 002
1913	4 276	4 242
1914	4 451	4 372

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* Source Frederick R Macaulay, *The Movements of Interest Rates, Bond Yields and Stock Prices in the United States since 1856*, National Bureau of Economic Research, New York, 1938, pp A108, A172.

ten years 1922–1931, averaging 4.62. The Standard & Poor's Corporation index of municipal bond yields moved within a range of 3.89 per cent to 4.43 per cent for the same January dates, averaging 4.13 per cent.

In the short breathing spell between the great depression and our entrance into World War II, 1936–1940, demand for investment funds was not active, and long-term money rates declined. Measured by the Standard & Poor's Corporation indices, yields of the highest grade long-term corporate bonds, public utilities, moved downward during this period from 3.54 to 2.66 per cent, while yields of long-term municipal bonds fell from 3.27 to 2.07 per cent. The latter bonds reflected the increasing attractiveness to large investors of their exemption from income taxation. United States Government longer term issues, at that time also enjoying tax-exemption privileges, moved in 1936–1940 from a 2.72 to a 1.79 per cent yield basis.

More appropriate for the purpose of establishing a norm might be reference again to the record of British Consols, which shows the major fluctuations in yield during the past two centuries of a prime obligation of the leading creditor nation. If we bar extraordinary periods of war and of post-war adjustments, Consols since their creation have demonstrated a remarkable stability of yield. Except for these extraordinary periods, they have seldom sold to yield as much as 4 per cent. On the other hand, their yields have fallen materially under 3 per cent on only a few occasions, notably during the 1890's.

Though Consols covered the wide distance from a 6.35 per cent basis in 1798 to a 2.42 basis in 1897 (2.22 if adjusted for conversion to lower rate then impending), for long periods they have held with only nominal change. Using only annual averages of high and low yields, we find that they held within the relatively narrow range of 2.99 to 3.51 per cent for the whole 50-year period 1833–1882. (The actual low price during the period on the issue, then carrying a 3 per cent rate, was 78¾, and the high was 103.) Then, for the 29-year period 1881–1909, the range of annual yields was between 2.45 and 3.02. On the basis of British experience, one might call a rate of 3 per cent or slightly more a "normal" yield on a highest grade, long-term obligation.

Concept of Normal of Limited Practical Value. Here, of course, we meet the valid practical objection that even if we agree on a normal rate, it can only serve as a very general guide, useful in laying out a long-range program but of limited value in gaging current risk. Economic conditions have a habit of veering away from "normal" for periods too long to be dismissed lightly by the investor. Consols, for example, yielded over 4 per cent for sixteen consecutive years beginning with 1916, and for an even longer period during and following the Napoleonic Wars. Similarly, actual yields on long-term United States Government bonds have since 1935 been materially less than 3 per cent. The investor must protect himself against the actual developments of immediate future years, regardless of what long-term normal theoretically may be. Furthermore, what is normal is obviously itself subject to change, and along with it, always, the soundness of those obligations now considered prime.

We may derive some guidance in planning an investment program through calculation of the normal rate of return to be expected on different classes of securities, but we must be conscious of new developments which are continually operating to change our financial structure. The tremendous growth in the volume of governmental debt for unproductive purposes, primarily military, is an obvious influence. Taxation designed to reduce large accumulations of capital is another. Increasing central economic and financial controls, including central banking operations and governmental lending and investing activities, are of great and growing importance.

We have commented on the infrequency with which the level of long-term money rates has shifted seriously and on the obstacles in the way of successful forecasting of such change. These factors are justification enough for the scant weight ordinarily given the risk by those fortunate investors who are truly able to disregard fluctuations in the market valuation of their investments. On the other hand, the average investor in fixed obligations cannot avoid at least some attention to market prices or to the prospect that his income may be frozen for an extended period at a needlessly low level.

Some investors must of necessity protect themselves at all times against the risk of depreciation in market value. Any investor, however, will act to protect himself to some degree on occasions when he has reason to believe that prevailing rates are excessively low or that extraordinary economic influences are about to alter supply and demand relationships in the capital markets and force existing rates upward. Effective employment of funds demands recognition and weighing of this hazard.

Methods of Protection. Two obvious lines of approach are open to the investor in search of protection against money rate risk. In the first place, he may try to reduce the risk of loss in so far as possible without undue sacrifice of income. Or, secondly, he may attempt to build up reserves adequate to absorb loss should it materialize. He may also choose to follow both policies at the same time, of course, depending on his judgment of the degree of risk currently existing and on individual circumstances affecting the extent of such risk he can afford to assume in order to secure a satisfactory income.

Spaced Maturities. As we have seen, the nearer an obligation is to maturity, the narrower are fluctuations in its price due to changing money rates, and the sooner is the investor's capital repaid so that he may reinvest on new terms. Investors such as commercial banks, which cannot risk more than nominal impairment of market valuation with the bulk of their securities, since they may be called on to satisfy deposit withdrawals at any time, will in consequence usually concentrate on relatively short-term obligations. Private investors, faced with the expenses and the problems of continual reinvestment, and primarily interested in income rather than stability of market value, often will prefer a heavy proportion of longer term issues, despite the increased risk of price depreciation these entail.

By varying the maturities of securities owned in accordance with his judgment of the degree of money rate risk, the investor, of course, has an opportunity not only to protect himself against loss but to profit from favorable trends when they develop. That successful prediction of such trends is merely a possibility, however, and not a reasonable expectation, we have already indicated. Much depends on the relationships prevailing between short-term and long-term rates, but usually the owner of short-term issues stands to lose, relatively, should money rates decline. Concentration on short-term issues may, of course, mean keeping capital virtually unproductive for long periods while waiting for long-term rates to firm.

Before deciding to concentrate his funds in either short-term or long-term issues, or perhaps in intermediate obligations, the investor will do well to sit down and calculate the ultimate net return likely to be received over a period as a consequence of the different policies, after adjustment for possible depreciation in market prices. This he may accomplish by using existing rates as a starting point and projecting results for a reasonable period ahead on the basis of several alternative assumptions, both favorable and unfavorable. For example, one assumption might be that both short- and long-term money rates would increase by 0.25 per cent each year for five years and then stabilize at the new level.

Calculations of this sort afford a practical basis for judging whether the difference in income return which may favor a long-term obligation is adequate to offset possible price depreciation or, in the event short-term yields are currently the higher, whether added income obtainable temporarily is adequate to offset the possibility of less favorable investment opportunities when a short-term obligation matures. However, though the different yields and price fluctuations of short, intermediate, and long obligations offer a tool by means of which the investor may minimize money rate risk, when he relies merely on his judgment and concentrates on one type of obligation it is always possible that he may actually increase the risk.

The method of approach most commonly employed with large bond portfolios, notably by life insurance companies and banks, is to avoid reliance on predictions or judgments of the trend of money rates, and to attempt merely to obtain an average rate of return with average protection against price depreciation by means of a scheduled, even "run-off" of maturities. That is, the obligations held will have maturity dates spaced so that more or less even quantities mature at regular intervals, generally each year. Not only does such a policy of "spaced maturities" maintain a balance between short- and long-term issues in the portfolio, contributing a degree of price stability, but it provides a steady return of capital, should it be needed, and a chance to reinvest an equal proportion of the total each period so that an average rate of return may be achieved.

Amortization Policies. Policies designed to build up reserves for absorption of possible losses due to rising money rates offer a supplementary safeguard, but one appropriate mainly to institutional accounts, for it is difficult to apply to the program of the average individual, who may have but meager knowledge of the intricacies of accounting. Amortization of the premium paid for a bond, for example, is a proper charge against the income received from the bond, and it should be employed to write down its cost, but the average investor is likely to overlook such an item. Because of this fact, the bond selling at a discount possesses definite advantages for some purposes.

A method of amortization frequently employed to advantage with long-term securities is to consider such obligations as made up of two distinct parts, one short-term and another covering the balance of the period to maturity. Any excess of yield received during the first part of the period over that prevailing on comparable short-term obligations may then be employed to write down the cost of the obligation, as protection against depreciation should money rates rise.

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PROJECTS

1. Present in graphical form the long-term swings in money rates since 1910.

2. Prepare a statement with respect to current money rates, including (*a*) the forces which now control them, (*b*) the trends you believe are in prospect, (*c*) the steps you think the individual investor in bonds should take in order to protect himself against the money rate risk, (*d*) the rate of return which investors in prime securities are likely to receive in the foreseeable future.

3. Calculate the prices at which a 2¾ per cent bond due in 9 years would sell if it were to yield 2, 4, 6 per cent, respectively, to maturity.

CHAPTER 11 Relation of Taxation to Investment Policy

The Impact of Taxation. No discussion of investment policy is complete without consideration of taxes. The same governmental units which, in the exercise of the functions described in Chapter 5, attempt to protect the investor from fraud and other needless losses, also demand a share in the proceeds of successful investment. Once a modest portion, this share has expanded until its control is now an important aspect of most investment programs. For some wealthy persons, facing almost confiscatory taxes on their incomes and, eventually, on their estates, avoidance of taxes during their lifetimes and preparation for them in the event of death may actually be the dominant considerations in management of their capital.

With most investors, though taxation is painful, the rates are low enough that it is not actually a determining factor in investment policies. At the same time, skillful management of tax problems should materially improve the net return obtainable on investments over a period of years and may save really substantial sums in the disposition of the estate of an individual.

Despite the importance of tax considerations to investors, comprehensive or detailed discussion of their application is not practicable here.[1] The tax laws are not only complex but are constantly being revised, both by action of the legislative bodies and by administrative and judicial interpretations. One whose tax problems are serious at all will be well advised to give the subject intensive study or to seek expert guidance. Our purpose in the following paragraphs will be mainly to outline the principal taxes which may influence policies, and the manner in which they do so.

Classification of Taxes. Taxes may be divided into classes according to objectives as well as methods of collection, the two principal objectives being revenue and regulation. Regulatory taxation is of great importance to some investors, for an avowed aim of much tax legislation has been to destroy extreme concentrations of wealth. However, the taxpayer is only theoretically concerned with why he must make his payment. Practically, he is concerned with the amount and with the means available for keeping it at a minimum. If we exclude property taxes levied against holdings of real estate, two principal forms of taxation are of major importance to him as an investor: taxes on incomes and taxes on inheritances or gifts. The taxes on personal property or "intangibles" which are levied by state and local governments commonly affect security holdings, other than obligations of the federal government and of governmental units within the state concerned, but in most instances they do not represent a heavy burden.

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[1] See, for example, John P. Allison, *Investors' Tax Planning,* Fallon Law Book Co., New York, 1946, and *Montgomery's Federal Taxes—Estates, Trusts and Gifts,* Ronald, New York, annually.

Taxes may also be classified according to the taxing authority. Income and estate taxes levied by the federal government have been much heavier than those of the state and local units. However, there has been enough difference in taxation between the states to make the state of official residence a matter of some consequence to large investors.

INCOME TAXES

The importance of income taxes, levied primarily by the federal government but also increasingly by the states, will vary tremendously with the type of investor and the size of his income. All recent federal revenue acts have taxed individuals at highly progressive rates, with each added "bracket" of income bearing a higher rate of tax than the bracket immediately below. In no act since 1932 has the maximum federal individual tax rate fallen below 63 per cent. In the Revenue Act of 1948 this maximum was 82.22 per cent. In some states, state income taxes have taken a good portion of the remainder of the highest incomes. On the other hand, residents of those states possessing "community property" laws which divide income equally between husbands and wives have in the past enjoyed a substantial advantage in federal income tax savings when their total incomes were large and could by equal division as community property be brought down to a lower tax bracket. This inequity was removed by the Revenue Act of 1948, which permits residents of all states to calculate taxable incomes on a similar basis.

Corporations have been taxed on a different basis. The rate recently prevailing has been 38 per cent, with lower rates for small corporations. During both World Wars, substantial excess profits taxes were also levied against those earnings which were high by pre-war standards. The investor in corporate equities has suffered from "double taxation" in that corporate earnings have been taxed both at the source and when distributed as income to individual stockholders.

Capital Gains

An aspect of American tax laws of great importance to the investor is the treatment of capital gains as taxable income. In this, the American laws differ from the British, for example, which do not include capital gains in most cases unless the investor is primarily engaged in "trading" operations. Existence of such taxation in the United States has forced investors, particularly those in the higher tax brackets, to give careful attention to the effect on their taxes of gains or losses to be established through the sale of securities, and to the relative advantages from a tax standpoint of investment policies stressing appreciation profits or direct income. Recently, relatively favorable rates established on capital gains, which have limited taxes to 25 per cent of the gains realized on assets held more than six months, have tended to encourage investors in the higher brackets to stress policies aimed at appreciation. In calculating whether the risks accompanying a proposed investment are offset by the opportunity it offers for profit, it is extremely important, naturally, that allowance be made for the extent to which taxes would reduce the profit.

For investors with securities bought at much lower prices, it has sometimes been preferable to suffer a substantial decline in market valuation rather than to take the profits and pay the taxes. The fact that taxes are on an annual basis and the extent of profits or losses to be realized through sale of securities cannot be known at the beginning of the year has led to the final month of the year developing into a "tax selling" period, when losses are registered simply to offset gains already established, or profits are accepted because it is believed that the tax rates on them will be higher the next year. In poor years, as many discovered after 1932, it may be important not to "accept" large losses that have developed among one's investments, but to save them to apply against profits in later more prosperous years. When the market value of their investment portfolio is above cost, many investment companies set up against the quoted values a "reserve for taxes on unrealized appreciation," a practice that has much to commend it.

The primary routes of escape from income taxation for most investors are through tax-exempt obligations, as defined by the federal and state laws, and through capital losses accepted to offset capital gains. The decision to be made by investors in bonds, for example, is whether, factors of risk being equal and consideration being given to the objectives sought, the yield on a tax-exempt obligation is more attractive than the yield on other obligations after deduction of taxes at the appropriate rate. Corporations have had some incentive, where it is otherwise practicable, to hold stocks because of the substantial exemption made for dividends received.

ESTATE TAXES

The other type of tax influencing investment programs which is of major importance, though applying only to individuals, is the "death duty" or tax on estates and inheritances, with its supplementary taxes on gifts or on distributions made before death. A heavy federal tax has for many years been levied on estates above a stated minimum, $60,000 in 1948, and an only slightly less heavy tax on gifts. The estate tax, based on the entire property possessed by a decedent, subject to certain exemptions and gifts for charitable or eleemosynary purposes, is a progressive tax, running in 1948 up to 77 per cent of that part of net estates in excess of $10,000,000. An important exemption added in the Revenue Act of 1948 was a "marital deduction" of up to 50 per cent of the estate, based on the value of property passing from the decedent to his or her surviving spouse. The federal gift tax, designed to prevent avoidance of the estate tax through distribution of property before death, had a $30,000 exemption and reached 57.75 per cent at its maximum rate.

State taxes of this type include both estate and inheritance taxes, one or the other or both being levied in every state except Nevada. State gift taxes are not common. The inheritance tax differs from the estate tax in that it is levied on individual inheritances rather than on the total estate, and its rate will vary both with the size of the inheritance and with the closeness of the relationship of the heir. The net effect of these different taxes, federal and state, which overlap in many respects and are subject to numerous exemptions and intricate calculations, particularly where property is owned in several states, is to make the services of a tax expert indispensable to any individual of large property.

With respect to investment policy, the principal consequence of heavy taxes of this type, made payable on the basis of valuation at the date of death or shortly thereafter, is to compel wealthy individuals to maintain considerable liquid funds or highly marketable securities in order to assure the availability of adequate cash to pay the taxes. Ownership of large blocks of any securities not readily marketable might have a seriously depressing effect on prices after liquidation is begun. Heavy ownership of common stocks would offer a special hazard in that death might occur with prices at the height of a bull market, though the generally cumbersome machinery of liquidation might not be in operation until prices were materially lower. The common solution of the problem for owners of large capital is to maintain substantial liquid or readily marketable assets earmarked for taxes. With smaller investors, especially if they are young men, life insurance is frequently relied on to provide this fund.

Tax Records and Review. It is essential for efficient management of tax problems that the investor maintain careful and adequate records of all his transactions. For example, a record of the date and price of purchase of holdings of a given security on the basis of the individual certificates may be extremely valuable when the issue was bought over a period or at different prices. If the individual can identify the particular certificate he sells, his profit or loss for tax purposes will be based on the price paid for that certificate, instead of automatically being based on the price paid for the earliest purchase.

It is also desirable for the investor to review his program at least annually on the basis of changes that have been made or are anticipated in the tax laws or their interpretation. Such review should embrace both income tax factors and the soundness from the tax standpoint of arrangements for distribution of the estate. Decisions based on it should be made with full realization that the tax laws will continue to change, perhaps to the embarrassment of the investor if extreme action is taken. Moreover, because of lengthy consideration of tax measures in Congress changes all too often go into effect retroactively.

Tax-Exempt Securities. Obligations the interest from which is wholly or partially nontaxable under existing federal and state laws are known as "tax-exempts." Included in the class wholly exempt from income taxes have been all state and municipal issues and certain bonds and notes of the United States Government, as well as certain obligations of its agencies and instrumentalities. Such issues have also been exempt from various minor local taxes in some states.

Because of the refuge against income taxation afforded by the increasing volume of these securities, with the resultant loss of tax revenue and attraction of funds away from private investment, agitation has long existed to eliminate the exemption feature. This led in February, 1941, to action by Congress making future issues of federal obligations fully taxable, though issues already outstanding were not affected. Resistance by state and municipal authorities, however, still lies in the way of elimination of the exemption privilege on issues of these public bodies. Opposition to the proposal is based mainly on the premise that such action would render state and local financing more costly.

TABLE 8

COMPARISON OF DIFFERENTIAL IN YIELD BETWEEN HIGH-GRADE CORPORATE AND MUNICIPAL BONDS AND MAXIMUM FEDERAL INCOME TAX RATE *

(in per cent)

Year	High-Grade Corporate Bonds	Municipal Bonds	Differential	Maximum Federal Individual Income Tax
1912	4.04	4.02	0.02	.
1913	4.13	4.22	−0.09	7
1914	4.07	4.12	−0.05	7
1915	4.18	4.16	0.02	7
1916	4.07	3.94	0.13	15
1917	4.39	4.20	0.19	67
1918	4.87	4.50	0.37	77
1919	4.98	4.46	0.52	73
1920	5.36	4.98	0.38	73
1921	5.22	5.09	0.13	73
1922	4.61	4.23	0.38	58
1923	4.75	4.25	0.50	58
1924	4.69	4.20	0.49	46
1925	4.60	4.09	0.51	25
1926	4.47	4.08	0.39	25
1927	4.24	3.98	0.26	25
1928	4.28	4.05	0.23	25
1929	4.54	4.27	0.27	24
1930	4.31	4.07	0.24	25
1931	4.38	4.01	0.37	25
1932	5.04	4.65	0.39	63
1933	4.69	4.71	−0.02	63
1934	4.19	4.03	0.16	63
1935	3.59	3.41	0.18	63
1936	3.38	3.07	0.31	79
1937	3.22	3.10	0.12	79
1938	2.99	2.91	0.08	79
1939	2.83	2.76	0.07	79
1940	2.75	2.50	0.25	79 †
1941	2.69	2.10	0.59	81
1942	2.70	2.36	0.34	93
1943	2.64	2.06	0.58	93
1944	2.64	1.86	0.78	94
1945	2.59	1.67	0.92	94
1946	2.50	1.64	0.86	86.45
1947	2.59	2.01	0.58	86.45

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* Adapted from table presented in testimony of John Hanes, Under-Secretary of the Treasury, *Tax-Exempt Securities*, Hearings before the Committee on Ways and Means, House of Representatives, 76th Congress, First Session, Washington, 1939 Sources of bond yield data corporate bonds, *Aw-Houghton* annual average yields on high-grade railroad bonds, 1912–1931, and Standard & Poor's Corporation index of yields on public utility bonds, 1932–1947, municipal bonds, Standard & Poor's Corporation annual average yields

† Plus small special defense tax

Obligations tax-exempt according to the provisions in the tax laws, which are subject to change through legislation or judicial decision, should be distinguished from obligations with "tax-free" or "tax-refund" clauses which provide that the issuer pays the tax or refunds it to the bondholder. The latter provisions are generally very limited; the issuer agrees to pay taxes only up to 2 per cent, or sometimes 4 per cent, and the provisions offer no protection against surtaxes. For obligations issued subsequent to 1934, the federal tax laws do not recognize tax-free covenants.

Given two securities of equal quality, one tax-exempt and one not, it is not difficult to calculate the approximate spread in yield which can be justified in an individual case.[2] An investor subject to a 50 per cent income tax, for example, would find a municipal bond yielding 2 per cent roughly the equivalent of a corporate bond yielding 4 per cent *if* everything else were equal. A corporation paying a 38 per cent tax would find a yield of 2 per cent on a municipal bond the equivalent of 3.23 per cent on a corporate.

Obviously, however, no one class of investor dominates the market completely, and it is also not easy to be sure that two issues are of equal quality. Many institutions which do not pay taxes are nevertheless compelled to buy "legal" bonds, a grouping that coincides to an important degree with tax-exempts. Tax-exempt securities are held to a substantial degree by institutions and organizations not benefiting fully from the tax-exemption privilege.

Further evidence that many influences other than tax exemption affect the yields on tax-exempt issues is afforded by Table 8, which presents the yields on high grade corporate and municipal bonds, the differential between them, and the maximum federal individual income tax rate since imposition of the tax in 1913. (For relationships between yields on railroad bonds and municipal bonds prior to this time, see Table 7, page 163.) The relative position of municipal credit obviously has risen and fallen for reasons in addition to changes in the value of tax-exemption privileges.

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[2] The determination of the exact "taxable equivalent" of the yield on a tax-exempt issue, however, is not a simple operation. The tax rate is in practice applied to the coupon rate on the taxable bond to determine the net coupon rate, and the yield to maturity is then calculated as if the net rate were the actual coupon rate.

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PROJECTS

1. List the types of securities that are exempted, wholly or partially, by the federal government. Compile a similar list for your state.

2. Bring Table 8 in this chapter up to date. What trends, if any, are shown in the figures for the years from 1945 to the present?

CHAPTER 12 The Investment Program of the Individual

Policies Need to Be Adapted to Individual Circumstances. In the chapters preceding, we have outlined the major hazards confronting the investor, and we have discussed various methods and policies employed for reducing or offsetting such hazards. We have emphasized throughout that the investment policies adopted should fit into a long-range program shaped to the investor's particular circumstances and objectives. These qualifying conditions vary tremendously, of course, among different classes of investors, with the widest variations occurring in the circumstances and objectives of individuals, in contrast with the more nearly uniform problems of corporate and institutional investors.

The present chapter will be devoted to consideration of some of the numerous practical decisions required in applying to the investment programs of individuals the policies we have discussed. The management of corporate and institutional investments will receive attention later.

At the start, it will be well to make clear that an individual's investment program, as we shall treat it, is something much less than a complete financial program. The individual needs always, in addition to planning his investment undertakings, to plan his financial affairs on a broader scope, including questions of total earnings and the general application of income, with consideration of savings, taxes, home ownership, prospective pension and Social Security benefits, various kinds of insurance protection, and "estate planning" or provision for the most desirable disposition of property at death.[1] Under some circumstances, for example, on retirement with funds not adequate to return a living income, his best program may actually be "disinvestment," or gradual consumption of capital, possibly through the medium of an annuity.

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[1] See the pamphlets published by the American Institute for Economic Research, Cambridge, Massachusetts, especially Kenneth C. Masteller, *How to Avoid Financial Tangles;* E. C. Harwood and Bion H. Francis, *Life Insurance from the Buyer's Point of View, Including Annuities and Accident and Health Insurance.* See also Philip Gordis, *How to Buy Insurance,* W. W. Norton, New York, 1947, and Mayo Adams Shattuck, *An Estate Planner's Handbook,* Little, Brown, Boston, 1948.

Are There Any Guiding Principles? There is danger that the investor, looking on the manifold risks he faces and the numerous and often conflicting methods of handling them, may be led only to confusion or to overemphasis on avoiding the risks most obvious at the moment. This is particularly true since his personal situation, known so intimately, is likely to appear to him unique, requiring special treatment. Is it possible for us to draw from our discussion of risks and policies any guiding principles of investment which are more or less universally applicable and will thus serve as a sound general framework for the planning of diverse individual programs?

Though we recognize the perils of oversimplification, we may properly attempt this step, for the investor cannot well proceed in an orderly fashion without it. The general principles we shall restate and present here as basic requirements for the sound guidance of investors are few in number, but important. Our discussions so far indicate that the individual who wishes to invest his capital productively through the medium of securities without subjecting it to excessive risk should:

(1) Adopt a long-range perspective, planning in advance a program appropriate to his needs and following it as consistently as is possible in a dynamic situation. Investment should not be based on snap decisions.

(2) Make a reasonable degree of safety of principal the primary consideration.

(3) After safety, place emphasis on income. Whether it is desirable that all the income be received currently or whether, through the ownership of common stock, a large share of the earned income may be plowed back into a business in order to bring about long-range appreciation in value will depend on the nature of the individual's requirements. The investor should avoid, however, reliance on short-term trading profits to be obtained through anticipation of essentially transitory and unpredictable fluctuations in market prices. Investment is not a guessing game.

(4) Weigh risks consciously and make allowance for their presence, since at least some risk is inevitable. The investor need not be frightened away from securities with more than minimum risk, but greed is an investment sin. He must recognize that when a greater return is sought possibilities of loss are likely to increase, and he must balance the risk of loss carefully against a conservative anticipation of the return. Investment is a question first of, "What risk can you afford?" and only secondly of, "What return would you like?"

(5) Follow certain established defensive principles in order to minimize risks. These principles include:

(*a*) Careful selection of individual securities, to avoid as many as possible of the variety of hazards which threaten individual profitability and solvency, and to profit from wise choices. This obvious requisite in any program forms the subject matter of Part 4, which deals with analysis of individual issues.

(*b*) Diversification, to lessen the importance of individual losses from any cause.

(*c*) Maintenance of a degree of balance between fixed obligations and equities, in order to assure, on the one hand, a backlog of stable income and, on the other hand, to allow to some extent for purchasing power risk and to permit growth of principal to offset losses. The extent to which this balancing is desirable will vary considerably with individual situations, and it may be provided through media other than securities, as, for example, the ownership of a business may serve as an equity investment.

(*d*) Spacing of maturities of fixed obligations, in order to hedge against money rate risk. Some backlog of liquid or highly marketable short-term holdings should be maintained for emergency needs, for it is fundamental in investment planning to allow for the unpredictable.

(*e*) Identification in at least a rough way of the current phase of the cyclical movement in prices of common stocks and lower grade bonds. Though such cyclical movement may be to a large extent a manifestation of volatile public emotions, it cannot be ignored by the practical investor. He would be unwise to rely heavily on prediction of cyclical movements in prices, but he will find it sound policy to confine purchases of common stocks, at least, to depressed or dull periods when cyclical risks appear to be relatively small and counterbalancing possibilities of gain appear to be relatively large.

Major Differences between Individual Problems. We have already commented on the wide variations in individual circumstances and objectives which modify the application of these guiding principles. Let us glance briefly at the manner in which such modifying conditions operate. The following factors are among the more significant.

DEGREE OF DEPENDENCE ON INVESTMENT INCOME

A central circumstance influencing policy is the degree to which the investor is dependent on investment income for his livelihood. Retired or disabled persons and widows and children, for example, may have no other source of income. For these individuals a stable income is most important to meet living expenses, and heavy emphasis on safety is imperative because no additions are reaching the capital fund from earnings. A high proportion of well-protected, fixed-income obligations is manifestly necessary in a program of this kind, though some consideration of purchasing-power risk is likewise unavoidable.

The situation is, of course, different with a man earning a comfortable salary which covers current living expenses and permits periodic additions to a capital fund designed to support him in later years. It is still different for the individual with other important sources of income, such as from royalties or a pension, who is virtually independent of his investment in securities. The latter man may be justified in assuming large risks if he is so inclined.

SIZE OF RESOURCES

The size of the individual's resources is naturally of great importance in determining appropriate policies. If his capital fund is large, he is better able to protect himself through diversification, and he can better afford to employ expert advice in the selection of individual issues. Thus he may be able to go "bargain hunting" with reasonable hope of success. He may also adopt this course because of lower tax rates on capital gains than on interest and dividend income. On the other hand, he may feel that tax rates on all types of income are so high in his bracket as to remove any incentive for the assumption of more than minimum risk.

As resources become smaller, other things being equal, the investor is forced increasingly to limit the risks he assumes, until the really small investor's capital may amount to so little more than a necessary reserve for emergencies that he is not justified in assuming risks greater than those present in insured savings bank deposits, or in United States Savings Bonds, which offer ready marketability along with a high degree of safety.

In practice, of course, we must recognize that the fact that one's resources are small does not always lead one to follow conservative policies. Small investors are notoriously prone to assume greatly excessive risks merely because the possible large profits associated with such risks appear to them so necessary in view of the meagerness of their present resources. Also, one who could afford large risks may choose to avoid them and confine himself to highest grade bonds for the reason that he feels he has not enough use for the greater return to justify the bother and the added risks involved in the former type of securities. His main interest is in the preservation of his favorable position; betterment of it has only secondary attraction.

The great differences in individual circumstances due to tax status have probably been discussed sufficiently. As we noted, under existing high-bracket personal income and estate taxes, tax considerations are often actually dominant in shaping investment policy. Existing income taxes operate strongly to encourage investment by wealthy individuals in tax-exempt issues and in minimum-risk securities in general. Heavy death duties on large estates make essential the maintenance of a high degree of stability and liquidity in such instances, as well as the most careful planning of distributions in order to minimize tax liabilities.

AGE AND HEALTH

The age of an individual and the condition of his health must naturally be reflected in his investment program to some extent. Should his capital be so large as to pose serious estate tax problems, this point is obvious, and advanced age or poor health may also render liquidity and stability plainly desirable, but other important aspects are involved.

The young man, for example, in good health and with his years of greatest earning power lying ahead, may safely assume risks that could not be undertaken by a man who is approaching the end of his period of economic usefulness, or who is in uncertain health. If the young man loses, he may expect another opportunity to build up his capital fund. The older or ailing man may not.

The young man may also make extremely long-range commitments in equities where the ultimate return is expected to be large but little or no income is provided currently. The older man might be foolish to look so far ahead, since he "can't take it with him." In fact, it may be advantageous for him currently to consume some of his principal as well as his income, either directly or through the medium of an annuity purchased from an insurance company.[2]

DEPENDENTS

The programs of most investors will be influenced by consideration of the needs of dependents, though the number of dependents and the nature of the provision to be made for them will vary greatly. During the investor's lifetime, the needs of dependents may require that he stress stability of income when making investments. It may be necessary, too, to accumulate in advance funds to care for the education of children.

The most important investment aspect, however, is the accumulation of an estate to provide for the needs of dependents in the event of the investor's death. The creation of such an estate to bequeath on death, whether or not beneficiaries are actually dependent, is a strong investment motive, and one reason why the consumption of capital through an annuity will not appeal to many investors. Life insurance, of course, is the primary agency employed to assure protection of dependents through provision of an estate on death, especially by the young man whose earnings have not yet permitted much accumulation.

[2] See the discussion of annuities in Gordis, *op. cit.*, pp. 230–257.

The investor who expects his estate to provide for the needs of dependents after his death will be well advised, of course, to make arrangement in advance for its management. The estate may be left in the hands of trustees or a trust company to manage in the interest of the beneficiaries, with or without restrictions. Use of a well-established trust company offers the advantage of experience and facilities not commonly available to the individual trustee, plus assured continuity of management. If such disposition of the estate is not made, the investor should at least leave general instructions for its management and name trustworthy sources of advice. In insurance, as we indicated in Chapter 3, the beneficiary may be given the choice of leaving the money on deposit at interest or of selecting an annuity income in lieu of lump sum payment from the insurance company.

Special Obligations and Risks

A wide variety of special obligations and risks may be incurred by the investor. For example, his investment requirements may be conditioned by the fact that he owes a substantial sum of money on his home, his business, or his securities. Business operations, for example, if he is a contractor, will sometimes require that a reserve fund of high-grade liquid investments be maintained for occasional use. Income from sources other than investment may be stable, or it may often be extremely erratic.

Engagement in a highly speculative occupation may make it desirable that the investment program chosen be more than usually conservative. If one is likely to be unemployed in time of depression, an investment portfolio consisting mainly of common stocks may provide the least income and possess the poorest market value at precisely the time when funds are most needed. Conversely, if one enjoys an extremely stable and permanent position, he may properly assume greater risks than could otherwise be justified.

Time Available

The time an investor has available or chooses to make available for investment management is a more important factor than is usually realized. Just as excessive time spent on investments may adversely affect the investor's progress in his primary occupation, so will hasty and inadequate investment management prove costly, both in the selection of securities and in their later supervision. He should determine in advance what time he can devote to his investments and then endeavor to shape his program so that it may be efficiently managed in the time available.

Relative nearness to sources of information and advice may be a factor of importance in this respect.

Normally, of course, as greater risks are assumed, more careful study and analysis and more vigilant supervision are required. Especially is this true of an investment policy giving heavy weight to profits obtained from cyclical fluctuations. When such study and supervision are not feasible, in the case of the investor with a minimum of time to spare choice of policies is restricted between resort to professional advice or management and confinement of investments mainly to high-grade fixed-income obligations.

Ability, Training, and Temperament

Time and energy, of course, are hardly enough to assure success in managing investments. One of the biggest practical problems in investment is the limited knowledge and experience of the typical investor, in contrast with the growing complexity of our financial and economic structure. Moreover, it has on many occasions been demonstrated that psychological fitness on the part of the investor is of no small importance, particularly in the management of those classes of securities subject to violent fluctuations in price, where it is essential that the investor remain level-headed in crises and patient in periods of dullness.

Obviously, these factors of ability, training, and temperament will restrict the nature of the investment program the investor may undertake, if he does not wish to go to the expense of employing expert professional counsel.

Peace of Mind

Worthy of some weight in the average individual's program is relative freedom from care and worry, with respect both to the general policies followed and to the individual securities owned. For some investors, such as retired persons or widows with dependent children, this factor may be of great importance. The nerves of some investors are hardly equal to the strain of certain types of investment policies that are advocated. On the other hand, the investor should never expect to be able with safety to put any type of investment security away and forget it.

Objectives Not Always Sound. Most of these influences may not be appraised exactly in terms of policy, and they are frequently conflicting, with much left to individual judgment, so that it is not surprising to find objectives being pursued that are often not at all in harmony with the investor's circumstances. As a matter of fact, in practice, objectives commonly receive an entirely disproportionate weight. What the investor wants will govern, at the expense of theory, and frequently at the expense of the investor.

Whether it is wise for the investor to follow a policy aimed at increasing his capital fund over a period, normally at some extra risk and sacrifice of income, or a policy aimed simply at the production of current income while attempting to preserve capital intact, for example, must depend in large part on his actual circumstances and not merely on his desires. The average investor has need for disinterested advice on the fitness of his investment program.

Need for Periodic Review. An investment program entirely appropriate at a given time may later become unsuitable in view of altered circumstances. Likewise, individual securities held may gradually change in character.

The investor should undertake a periodic review of both his general investment program and the specific securities held in his portfolio. Too frequent review may lead to excessive turnover and undue emphasis on transitory short-term developments, but the fact that a policy is long-range does not mean that it should be inflexible, and careful selection of securities does not remove the need for subsequent reconsideration and, at times, elimination. In so far as individual issues are concerned, a sound rule followed by some investors is to weed out unfailingly each year that security which is believed to be in the weakest position, regardless of its price relative to cost.

It is well to bear in mind that most investment decisions are not made on the basis of an "ideal" program. Seldom is it feasible, even if desirable, for the investor actually to wipe the slate clean and start afresh. Decisions are almost always colored by what has gone before, especially if securities have brought the owner large losses or large profits. Irrational though it may seem, either of these latter developments tends to cause the investor to become wedded to the security in question. He is loath to accept large losses, and he is lulled to a sense of security by large profits. Subject to the practical consideration of the effect on his taxes, however, the investor will do well to avoid thinking in terms of historical cost and think instead in terms of present and future value.

Patience. There is need for a word urging patience in the application of any investment program. Too many investors are impatient for results, for some prompt verification of the wisdom of their policies. In a world where values fluctuate violently from year to year on the market place, it is difficult for most human beings to remain convinced of the necessity of adhering closely to a long-range plan which foregoes quick trading profits and stresses instead only a moderate though regular income return.

The investor must learn through experience that market prices by their nature will remain either too high or too low for long periods. He should expect prices to be stubborn and slow to reflect what may appear obvious to the critical observer, and he must guard against being stampeded by persistent delusions entertained by the general public. With common stocks, certainly, careful timing of purchases is of the greatest practical value, even if income must suffer for a considerable period.

This implies, of course, reasonably sound judgment on the part of the investor. It is quite possible for him to be hopelessly long-range and stubborn himself in adhering to a particular theory. The successful investor must be a realist.

Influence of Speculation. To be a realist, the investor, if he proposes to employ equity securities at all, will require some knowledge of the nature of the speculative influences which play such an important part in the movements of the stock markets. Lacking first-hand experience, he will probably underestimate the strength of some of these forces, to his embarrassment and loss. Reference is suggested to various works on stock market trading which picture in some detail the frequently irrational but contagious activities of stock-minded speculators.[3]

Selection of Individual Issues. Though the analysis of individual securities will be the subject of Part 4, it is desirable here to point out again that the number and type of issues owned is a matter of general policy. Diversification of investments has been held up as an essential means of protection against risk, and yet it must be recognized that the degree of diversification which may be attempted is dependent on both the time and ability which may be devoted to selection and supervision and the amount of funds available. The average individual cannot properly supervise more than a relatively limited list, and the charges involved in small-lot transactions make extreme diversification expensive for small investors. As a matter of fact, these problems may at times actually preclude the employment of common stocks, for adequate safety in common stock investment requires a considerable diversification.

Whether investors are able, because of facilities for judging individual issues and the ability to assume more than average risks, to shop around for bargains, or for securities obtainable on a more favorable basis than are the most popular issues, may have an important bearing on their results. The concentration of investment holdings in the best-known and most marketable securities tends, of course, to bid up their prices out of proportion to others that are sound but less well-known and less readily marketable.

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[3] See, for example, *Commonsense Speculation*, by "The Trader," Barron's, New York, 1938.

Mechanical Details of the Program. In connection with the mechanics of investment there is need (1) for assurance of the validity of the certificates of ownership received, (2) for provision of a proper means of safekeeping, (3) for consideration as to whether the securities should be held under joint tenancy or some other form instead of solely in the investor's name.

A proper system of records is essential, primarily for tax purposes, but also to measure the results achieved and to reflect the consistency with which a policy is being applied, by means of periodic valuations and analyses of the distribution of funds among different types of investments. A good system of accounting may also provide, out of income, reserves against losses or temporary interruption of income, and it will permit the amortization over a period of premiums paid on bonds.

Setting Up the Program. The actual framework for an individual program, into which may be incorporated the modifications we have been discussing, will normally be constructed somewhat as follows:

(1) INSURANCE

If there are dependents, provision for their protection through life insurance is an essential first step, at least until the individual's direct investments reach a total considered adequate for this purpose. Disability and health insurance is similarly desirable in order to guard against loss of earning power prior to the completion of the investor's program.

It is not practical to set arbitrarily here any standard proportion of either type of insurance that should be carried. The investor, however, will find insurance salesmen naturally inclined to suggest the protection he would like to have rather than the protection he can afford, and he will do well to study the subject for himself. Incidentally, careful analysis of an insurance company and the policies it offers before making a commitment is fully as important as analysis of any other investment.

(2) THE RESERVE FUND

The reserve fund, or backlog, should represent the first surplus the investor builds up. Consisting of investments such as savings bank deposits and short-term, high-grade bonds, it offers stability and ready liquidity for emergency or reserve purposes. It should receive steady accretions as new savings are accumulated pending more permanent employment. The size of this fund will vary with individual needs, but it should amount to at least six months' to a year's earnings. If savings are being built up to meet a specific objective such as home ownership, it may be much larger. For the ailing or elderly wealthy individual facing the imminent prospect of a large estate tax, the reserve fund may represent a large proportion of his total capital.

(3) THE GENERAL PORTFOLIO

Within the general portfolio, normally including the bulk of the investor's funds, investments should be balanced between fixed obligations and equities in accordance with the particular objectives decided on. When equities are stressed, at least some backlog of stable income in addition to that of the reserve fund will usually be desired, and, when fixed obligations are emphasized, at least some ownership of equities will in most cases be included to afford a limited protection against purchasing power risk and to permit growth of principal to offset losses. Often maximum and minimum percentages will be set for each class, or for their subdivisions, perhaps to be varied at different stages of the cycle. In order to assure maintenance of appropriate balance, an automatic investing "formula" may be adopted.

The general portfolio, of course, may properly be analyzed and arranged with many additional factors in mind, some of which are important. For example, we may test it for diversification of investments among industries and among individual issues, for diversification geographically, for marketability, and for properly spaced bond maturities.

A clearer picture of the manner in which a balance is arrived at for such an investment portfolio will be afforded by consideration of a few illustrative examples. We shall look briefly into the problems of four common, if not actually hackneyed, types of investors; namely, the widow, the small investor, the business or professional man, and the wealthy man. The four categories, of course, are not mutually exclusive.

Example I: The Widow. Alternative methods of handling the investment problems of the widow who must rely on her investments for her support have been argued with particular force in recent years, for it is in instances of this sort that the traditional approach to conservative investment which disregarded equities entirely has been able to make its strongest stand. Legal restrictions placed in some states on trustees who handle accounts of this type and the practice followed by many individuals would still bar the employment of equities in a widow's fund.

There has been a growing tendency in recent years, however, to include at least a moderate proportion of equities.[4]

The widow, of course, has long been regarded as especially vulnerable to unwise selection of investments because she ordinarily has been utterly inexperienced in financial affairs. Moreover, she often receives a considerable lump sum of cash from life insurance or other sources immediately, before she has had time to acquire any such experience.

What does a widow require? Naturally, we shall in practice have to determine requirements individually, for, as with other investors, a great deal will depend on the degree to which she is dependent on investment income, the size of the resources she has available for investment, the requirements of her dependents, her age and health, and her ability and experience in financial matters. Let us assume, however, that she is simply an average widow with complete lack of financial experience who has investment problems and who is distinguished mainly by heavy dependence on an investment income that will not be any too large at best and that must continue for a considerable period.

Because of her lack of experience she will be most happily situated, despite the fee involved, if the funds have been placed in the hands of a capable trustee, with expectation of sound if uninspired professional management. If she has life insurance money, she may be best advised to leave the funds under the management of the insurance company, despite the modest return. Even if the estate has been committed to her own care, if advice and instructions left by the departed are thorough and sound she may be able to manage satisfactorily until such time as she has acquired a practical knowledge of investing. To place a considerable sum in the hands of an inexperienced widow without instructions, however, is to invite disaster. Moreover, to ask her to follow the occasional advice of a well-meaning friend in order to avoid the fee of a trustee has been proved time and again to be mistaken policy.

Of her investment program, such a widow will require as large an income as is compatible with a relatively high degree of safety of principal. Particularly, she will need an income that is dependable and not subject to wide fluctuations, and she will desire to be as free as is possible from worry over financial affairs. Appreciation in her case is clearly not a suitable goal. She needs a program of hedging and of diversification of risks rather than an opportunity to increase her estate, and she is entitled to employ equities only in a limited way for possible protection against purchasing power risk. In the selection of individual securities, though she may sacrifice marketability to secure income, she must abide by high standards of quality, for the temporary procurement of a 1 per cent greater return per annum would be small recompense for permanent loss of part of her principal.

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[4] We may cite particularly the widely publicized "Investing for a Widow" contests conducted by *Barron's* in 1925 and in 1939, in both of which the contestants, drawn from all walks of practical finance, recommended the placing of a heavy proportion of the widow's funds in common stocks. The average proportion committed to common stocks in the portfolios published in 1925 was about one-third; in those published in 1939 it had risen to approximately two-thirds. It is interesting to trace actual experience with the prize-winning plans. See the statistics of performance of the 1925 plans quoted in *Barron's* of July 31, 1939, and those for the 1939 plans reported in *Barron's* of September 27, 1948, and November 22, 1948.

The number of securities owned by a widow of this type with a fund of, say, $50,000 need not be large. A portfolio of no more than twenty issues should be adequate to supply all necessary diversification, if the individual issues are carefully selected. There is much to be said for making the program simple and understandable so that the widow may be able to visualize its true nature and not look on it as a mystery.

Proper diversification is not so easily accomplished among common stocks as among fixed obligations because of the greater individual risks assumed and the greater element of prediction involved. A widow with $50,000 or less is not justified, under ordinary circumstances, in placing enough money in common stocks to permit diversification, except indirectly through the medium of carefully selected investment trust or fire insurance shares. The primary service of her investment fund is to produce a dependable income to meet her living expenses. This common stocks cannot promise, and in a fund of this size there is not likely to be much money left after purchase of the fixed obligations necessary to provide for minimum living expenses.

An ideal investment program for the widow we have been discussing might involve, for example, $10,000 in a reserve fund divided between savings bank deposits and building and loan accounts, and $40,000 in a general portfolio comprising equal holdings of twenty high-grade bonds with spaced maturities. Depending on comparative yields, holdings of one of the series of United States Savings Bonds might be advantageously employed. After the backlog of a minimum steady income has been provided for, of course, consideration of equity holdings to obtain protection of purchasing power along with income may be logical, and a $100,000 fund might properly in some cases include a third or more in high-grade equity securities, depending on the prices at which they are obtainable and the size of the steady income required.

Example II: The Small Investor. When we speak of the small investor, there is also need for more specific identification. How small, and what are the investor's other circumstances?

For our purpose we shall picture the small investor as one who has succeeded in saving anywhere from a few hundred to several thousand dollars but who falls into the numerous class of salaried employees, laborers, small farmers, and small businessmen who have little or no prospect of really substantial accumulations from their own earnings. The overwhelming majority of investors, numerically, are in this class. Such investors need to differentiate their problem from, for example, that of the "beginning investor" or the young business or professional man who has reasonable promise of eventual large income and who may consequently assume somewhat larger present risks, in part as a measure of education.

A particularly great divergence of objectives exists among small investors, primarily because of the great discrepancy between their actual resources and their desires. On the one hand, there is the frugal couple slowly building up a small income to aid in their old age. Then we see the enterprising man who is engaged in accumulating a small stake with which to go into business for himself. At the other extreme, we find the individual who is impressed with the impossibility of ever satisfying his desires through the modest return on orthodox investment operations, and who in consequence knowingly or unknowingly accepts awe-inspiring risks in the remote hope that he will "strike it rich."

The latter practice, long associated with shares in gold mining and oil properties, has received considerable stimulation from the general common stock philosophy of investment prevalent in recent years, which has sometimes painted so glowingly the long-range prospects for appreciation believed to be inherent in equities. As we remarked at an earlier point, statistics attest to the growing dispersion of common stock ownership among small investors.

The average small investor, because of the meagerness of his resources, has no justification for the assumption of large risks. If he has dependents, present or prospective, his life insurance premiums are likely to absorb the bulk of current savings. He cannot effectively employ diversification to minimize the impact of investment losses, and he is not able to afford the hire of competent advisers. Moreover, he has need for a relatively high degree of marketability.

For the investor with $5,000 or less, an adequate reserve fund will usually require a large share of his resources, and the balance of his holdings should be similar in type. United States Savings Bonds and insured savings deposits and savings and loan accounts are his most suitable media for obtaining safety, dependable income, and liquidity.

Should such an investor feel impelled to undertake common stock risks, he should confine his holdings to group investments such as investment trusts and fire insurance companies, in which he has the benefits of diversification and of professional management, and before selecting such media he should investigate carefully their individual merits, not only their investment policies and experience but also the costs involved.

A word with regard to the value of the various instalment investment plans is probably not out of place. Although systematic saving is essential in the accumulation of an investment fund, the typical instalment plan through which the individual invests $10 or more monthly for a period of years, to be devoted either to the concurrent purchase of shares of a stock or to the gradual purchase of a mortgage certificate, is unduly expensive. Heavy expenses incurred in selling these plans must come out of the investor's contributions, and the ratio of lapses, often involving the forfeit of a large percentage of the sums paid in, is high.[5] The small investor wishing to build up his capital systematically will do well to employ savings institutions, or United States Savings Bonds, the purchase of which in small amounts at regular intervals may readily be arranged.

Example III: The Business or Professional Man. The term "businessman's investment" has long been employed to describe issues offering better than average return with correspondingly larger risks. The reason for this nomenclature appears to be the belief that, after all, a successful businessman can afford to lose on his investments. Because he, likewise, often has large direct earnings, the investment problem of the professional man is frequently considered in the same light.

Now it is true that a man earning a substantial direct income, so that over and above living expenses he is able to make sizable periodic additions to his investment fund, may be justified in assuming considerable risk in his investment program if he so desires. We must, however, guard against an undue extension of this logic. It is entirely possible that the risks assumed will be excessive even in view of the opportunity for replenishment of capital and of his independence from investment income. The investor cannot afford to forget that any one of many developments might curtail his earning power or cut it off entirely, probably without cutting off his desire for a good standard of living. Furthermore, a comfortable living after his eventual retirement is a necessary consideration.

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[5] See *Report on Companies Sponsoring Installment Investment Plans,* Securities and Exchange Commission, Washington, 1939.

It is all-important, when discussing the investment problem of a business or professional man, to ask, "What business or what profession?" Surely, the relative hazards of the individual's primary occupation must be kept in mind. Equally, the fitness of the individual to manage an investment program and the time and information he has available are important items. A policy that is sound for an investment banker who is in continual close touch with investment affairs may be highly dangerous for a busy retail dry goods merchant. Similarly, a policy followed with success by an experienced and well-informed corporation lawyer might spell ruin if attempted by a physician engrossed with a large medical practice.

In general, a quite erroneous impression exists regarding the investment acumen of the man who has been successful in business, and proper emphasis is rarely given to the amount of time which must be devoted to study and supervision by either business or professional men if they hope to manage their investments effectively. The investor must bear in mind that policies emphasizing bargain hunting or large returns based on the assumption of large risks inevitably require more alert and capable supervision than do more conservative policies. If he is a busy man, and not in particularly close contact with financial affairs, he should at least consider the advantages of delegating management to professional counsel or trustees. If he believes that he can provide adequate management himself at lower expense, he will be wise to adopt a simple long-range program with a degree of balance and not to indulge in active short-term trading, except perhaps as a hobby, with a small part of his funds and with a determination not to let temporary success go to his head.

Example IV: The Wealthy Man. One who has the task of developing investment programs for wealthy individuals learns that, along with the greater latitude in policy available to the investor with large resources, there will frequently go an accompanying pronounced preference for specific investment media. Often, and not surprisingly, the wealthy investor's portfolio will be top-heavy with a particular type of investment, such as real estate, or with the securities of a particular individual company, for the reason that his fortune has had its roots in these sources. What has treated him kindly in the past he naturally will regard favorably.

There are numerous additional reasons for such concentration, including the desire to retain control of a business, the investor's belief that he will be most successful in a type of investment with which he is thoroughly familiar, and the practical problems of marketability and of taxation with respect to large blocks of securities owned at a low cost. Granting these points, however, at least a moderate degree of balance and diversification is essential from the viewpoint of sound investment policy. That such an investor may not place sound policy first, and because of his large resources may not need to, does not alter the desirability of a diversified program.

Such an investor, of course, can easily afford professional investment advice and management and will usually be wise to avail himself of it. He may find a personal trust fund advantageous, and he will probably establish trust funds for dependents. His position may permit him, if he manages his own investments, to make use profitably of "inside" financial and business contacts not open to others, but such specialized contacts will hardly offer an adequate basis for a complete investment program.

Under existing tax laws, as we have pointed out, the wealthy man will at times have more need for tax experts than for investment managers. The employment of tax-exempt securities in order to reduce income taxes is an obvious step. Even more important for their effect on investment programs are heavy estate taxes. The wealthy investor may be virtually compelled to retain a large reserve fund of high-grade, short-term securities for the specific purpose of meeting possible estate tax payments.

In the general portfolio of the wealthy investor, of course, there is in theory an ideal opportunity to put into effect the guiding principles advanced earlier in this chapter for the productive employment of capital without the assumption of excessive risk. The wealthy individual need not attempt to provide accurately for his risks, but, like the civil engineer designing a bridge, after appraising risks, may simply allow for twice or three times the protection normally required. Whether the wealthy individual's results will in practice be so favorable as theoretical consideration might suggest is, however, dubious. The experience of investment trusts, occupying a favorable position analogous to that of the wealthy investor, will serve as an illustration in a later chapter.

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PROJECTS

1. Outline a general program, as of the present time, for a single man with no dependents, 50 years of age, employed steadily at an $8,000 salary, and with an accumulated estate of $50,000.

2. Do the same for a widow, aged 35, with two children, who has a home free from debt and whose estate consists of $200,000, the proceeds of her late husband's insurance. In each of the two projects justify your proposals fully.

CHAPTER 13 Investment Policies of Trust Funds and Endowments

A. TRUST FUNDS

The Nature of the Problem. Trust funds have their origin in the placing of property by the creator, known as the trustor, in the hands of a trustee to hold and manage for the benefit of one or more designated parties known as beneficiaries. The services of a trustee may be performed by an individual or by an incorporated body. We shall confine this discussion to the administration of personal trusts by the trust departments of banks or trust companies,[1] although the same principles of management should prevail in the individual trusteeship.

The most prevalent types of personal trust are (1) *testamentary trusts,* created by a will and coming into being on the death of the trustor; (2) *living trusts,* which become operative during the life of the trustor, who may designate himself as the beneficiary; (3) *life insurance trusts,* in which the insured designates a trust institution as the recipient of the proceeds of his insurance policies on his decease, to be invested and managed in the interest of certain designated beneficiaries. Living trusts have grown steadily in importance in recent years, and they account for much the largest total of assets. In terms of total assets, life insurance trusts have never been comparable in importance to the other two types, and they are less important now than formerly.

In creating a life insurance trust, rather than arranging for the proceeds of one's policies to be left with the insurance companies which issued them, the trustor usually is motivated by the desire to provide his wife with an income during her lifetime and still have his estate left intact, or perhaps enlarged, for his children. However, the arrangement is flexible, and payments may be made to the widow regardless of the income from the account. Where there are no children or the insured is more concerned that his wife shall have a maximum fixed income so long as she lives than that an estate should be left at her death, the proceeds of his policies are usually left with the insurance companies and specified monthly sums are paid to the widow as an annuity for the remainder of her life. Insurance companies also offer alternative settlements under which a smaller income is provided for the widow and payment to the children is continued after her death, but the more the company has to provide subsequent to the principal beneficiary's decease the smaller the payments which can be made during her lifetime.

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[1] Hereafter, for the sake of brevity, we shall refer to both types of corporate trustee as "trust departments."

Exact figures on the aggregate size of personal trusts in the United States are not available, but estimates place the amount well over 40 billion dollars.[2] The advantages of corporate trusteeship over the individual trustee are receiving increasing recognition, and the facilities and volume of business of the former have been experiencing a steady growth.[3] Contrary to the popular impression, a large proportion of this business is in small trusts. An extensive survey conducted by the Trust Division of the American Bankers Association in 1947 found that 54 per cent of the trusts held by the reporting banks had annual incomes of less than $1,200, and 73 per cent had incomes of less than $3,000.[4] However, the proportion of trusts created by persons of moderate or small means to the total number of estates of living and deceased persons is still small.

To provide adequate management for a small estate and still keep the cost within bounds is one of the difficult problems of trust administration. A little later, we shall note some measures which have been taken to cope with this problem. An endowment, an insurance company, or a savings bank commingles its money in a single investment fund, whereas each trust estate has its own peculiar requirements and, ideally speaking, should have its own separately managed investment portfolio. Furthermore, whereas the funds of these other institutions come to them in the form of cash, most testamentary and living trusts consist of all manner of stocks, bonds, mortgages, flat buildings, farms, business enterprises, and what not. It is the job of the trustee to render the special managerial care they require, to dispose of the undesirable assets on the best possible terms, and to substitute items better suited to the estate in question.

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[2] The annual report of the Comptroller of the Currency for 1947 showed that national banks alone at the end of 1946 were administering 163,000 personal trusts with assets aggregating $17,800,000,000. State-chartered banks and trust companies are probably in total more important.

[3] Among national banks, this growth has been particularly rapid in recent years. Trust assets of these banks, as reported by the Comptroller of the Currency, grew from $9,500,000,000 as of June 30, 1941, to $17,800,000,000 at the end of 1946, an increase of 87 per cent.

[4] *The Trust Bulletin,* May, 1947, p. 2.

The Mechanism of Trust Administration. The trend in trust instruments for many years has been toward granting trustees broad discretionary authority as far as investments are concerned, and this is now the common practice. It is another instance of recognition of the impossibility of anticipating future investment problems. Too often in the past trusts have suffered from lack of flexibility as well as from personal investment predilections incorporated in them by the trustor. Under our system of law, a rigid adherence to these instructions must be maintained unless the courts can be persuaded to grant relief. So great is the respect for the "dead hand," however, that modifications can be obtained only when following the instructions of the trustor can be shown to imperil the estate. Even when estates are turned over to the trust department without instruction from the trustor, the corporation can be held liable for losses if it can be shown that it did not exercise sound discretion and due diligence.

Since testamentary trusts do not begin to function until after the death of the trustor, it is essential that as much freedom as possible be granted the trustee to meet unforeseen situations. Unlike the living trust, the maker of the testamentary trust is not available for consultation when difficulties arise. It is important, therefore, that specific permission be granted the trustee in the will to retain or to make such investments as seem to the best interest of the estate. Otherwise, in states where the investments of testamentary trusts are restricted by law to "legals," there may be no way to hedge against inflation or to obtain adequate income.

The discretionary authority granted by the trustor should not be limited to investment policy. Of equal importance under many circumstances is ability of the trustee to dip into the principal of the trust to meet emergencies or opportunities or simply to care adequately for the comfort of the beneficiaries. The trend has turned from the once grim insistence on keeping principal intact toward primary emphasis on caring adequately for immediate beneficiaries, presumably those closest to the trustor, at the expense, if necessary, of the interests of remote remaindermen, possibly not yet born. The intentions of the trustor in this respect should be fully set down in writing, for the courts cannot be expected to imply intentions.

The trust institution should normally be made the sole trustee, if the best results are to be obtained from the investment program. Often a person of limited experience who has been named co-trustee insists on interjecting ill-advised ideas—to the detriment of all concerned.

Like any other manager of investment funds the trust department should either be thoroughly equipped itself or employ competent investment counsel, but even in the latter case the trustee cannot shift the responsibility. The majority of trust departments have a sufficient volume of business to warrant the employment of trained experts and the provision of the requisite sources of investment information. Though it is well to have a senior officer at the head of the investment department, he should be accountable to an advisory committee. In large companies it is quite essential that officers be placed in charge of each of the classes of trusts, but they likewise should be required to report to their respective investment committees. Their action, of course, would be subject to review by the main committee. Since the law places the responsibility for the conduct of financial institutions on the top management, it must determine questions of policy.

Continual review of the contents of each trust is necessary, as well as a constant accumulation and analysis of information regarding corporations or divisions of government whose obligations are now held or might prove to be a desirable accession to one or more of the trusts. A close watch must be kept for developments which may affect the situation of any security or property held in a trust.

As funds are received, the problem of investing them must be faced without delay in order that there shall be no loss of income. Privileged subscriptions must not be overlooked and, if a default occurs, the trust department should make an investigation of the situation and keep the client informed of developments. However, many as are the angles in the management of a portfolio of securities, the task seems simple compared with that of administering a trust the corpus of which is composed of numerous parcels of income-bearing property. Collections, repairs, insurance, taxes, vacancies, are then part of the day's work. A similar situation exists when the trust includes ownership or control of a business concern, with all the attendant specialized problems of business management.

The Problem of the Small Trust. As we noted earlier in this discussion, the management of small estates is one of the special problems in the field of trust administration. It is difficult to secure the degree of diversification which is essential to a well-rounded investment program, and trust departments also find it difficult to handle such business at a profit. Two solutions, neither of which is entirely satisfactory, are being attempted. One is to place the entire contents of the trust in a few high-grade bonds, often in United States Savings Bonds. This will provide the highest degree of safety, hence there will be less need to worry about lack of diversity. The yield, however, will be less than that of a well-selected, well-managed, assorted portfolio, and there is no protection against a loss of purchasing power if the price level rises. The other alternative, which has been receiving increasing attention, is to commingle small estates in a fund sufficiently large to enable the management to obtain for the beneficiaries the advantages and economies which accrue to large estates. Successful commingling of the assets of small estates is, of course, hampered by the great variety which exists in their individual characteristics and the needs of their beneficiaries. Adjustment is possible in most cases through commitment of only a part of the assets of the given trust to the fund and investment of the remainder separately, but some of the hoped-for economies in management are thereby lost.

Experience in operating such commingled funds goes back to 1928–1930, when the first common trust funds were established, in New York and Wilmington. However, the real impetus to widespread adoption of this device came in 1936, when Congress relieved such funds of federal income taxes (i.e., of double taxation of the income of the beneficiaries) on the condition that they meet certain requirements to be established by the Board of Governors of the Federal Reserve System. The Board of Governors took appropriate action the following year through its revised Regulation F. Necessary permissive legislation was also gradually adopted by state legislatures. By 1947, twenty-seven states expressly authorized the establishment of common trust funds, and numerous funds were in existence. They were concentrated particularly in New York and Philadelphia but were in operation in many sections of the country.

Some of the early common trust funds were incorporated, their shares being placed in small trusts as the need appeared, and others were set up as trusts, with the trust institution serving as trustee and participations being issued as required. The latter is now the accepted form of organization, since it conforms to the regulations issued by the Board of Governors. Participation is confined to bona fide trusts under which the sponsoring bank or trust company is named as trustee, and under present rules the maximum individual participation is $50,000. Naturally, an estate cannot participate if the trust agreement does not sanction such a move or if the instructions of the trustor are in conflict with the investment policy of the fund.

Usually, the regular investment staff of the trust department administers the common trust fund. A considerable freedom of selection is exercised in most instances, and it appears that common stocks have frequently been employed relatively liberally in these funds. The fund is compensated for its services directly by the several trust estates.

It seems probable that the use of commingled funds will increase further, for investment experience thus far appears to have been favorable, and trust departments are working actively to reduce their costs of handling small estates. At the same time, difficulties will remain in fitting participations in such funds to the varied requirements of the different individual trusts. Individual trusts will continue to need individual attention, and there will always be a certain number of smaller trust estates that will not lend themselves to commingling at all.

Public Regulation of Trust Fund Investments. When John Doe manages his own funds he is free to carry out any sort of policy he chooses, but when the same John Doe, as officer of a trust department, undertakes to manage the investments in a trust fund he is restricted in his action: (1) by such provisions as the creator of the trust laid down, (2) by the laws of the state which govern the acts of trustees, (3) by a long line of court decisions defining the powers and duties of trustees.

It is the duty of the trustee to follow first the wishes of the trustor. In most states, if they are not expressed, he must confine the investments of the estate to such securities or classes of securities as the state may sanction. In this regard, however, there is a wide difference among the states. Some confer on a state board or commission the power to approve specific securities as "legal" for trust investments. Others merely designate general specifications such as character of obligor, size, and earning record. Still others—and this has been an expanding group—leave the matter to the trustee.

The contrast in approach to public regulation is best exemplified by comparing practices in New York and in Massachusetts. In New York, the statute not only prescribes in detail the types of investment permitted, but also provides that the authorities shall maintain a specific legal list of qualifying securities for the guidance of trustees. In Massachusetts, there is no statute on the subject, but instead a theory of law, known as the "Massachusetts Rule" or "Prudent Man Rule," which reflects court decisions dating back as far as *Harvard College v. Amory* in 1830. Incorporated in a model statute prepared by a committee of the American Bankers Association, the Prudent Man Rule has been adopted in recent years by a number of important states and may fairly be said to represent the current trend of thought. In its first section, the model statute provides that

> . . . a fiduciary shall exercise the judgment and care under the circumstances then prevailing, which men of prudence, discretion and intelligence exercise in the management of their own affairs, not in regard to speculation but in regard to the permanent disposition of their funds, considering the probable income as well as the probable safety of their capital.

It is not within the province of this book to enter into an exhaustive discussion of the court decisions which govern the actions of trustees. They may be summed up briefly in the following statements:

> First, trustees must display the same care and diligence as a prudent and competent person would exercise with respect to the investment of the funds of another person.
>
> Second, they must confine their activities to investing, as opposed to speculating, with the funds in the estate.
>
> Third, honest mistakes in judgment shall not be held against them. Furthermore, they are not to be judged on the basis of hindsight but on the basis of information available at the time the questioned decision was made.
>
> Fourth, whereas a person investing his own funds may withhold them from the market indefinitely, trustees must invest rather promptly.

The courts on the whole have been inclined to be "old-fashioned" in their attitude toward investing in equities. The preponderance of judicial opinion seems to be that the mere granting by the trustor to the trustee of freedom to use its judgment does not permit the latter to go outside the "legal" list of the state. In other words, if it is the trustor's desire that the trustee invest in equities, he should grant such authority specifically in the trust agreement. In a number of states, "nonlegals" in an estate in which the question has been left with the trustee must be sold as soon as it is expedient, and the proceeds invested in "legals." The reasoning followed when stocks are excluded from trust funds seems to be that, in acquiring equities, the trustee is engaging in business ventures with the funds in its care, and there is no promise made by the corporation ever to return the sum invested in its shares. The same objection is made to purchase of real estate for investment purposes without specific direction in the trust agreement.

Prevailing Investment Policy. As we have seen, certain states, of which New York is the leading example, limit the scope of trust investment to certain types of bonds and mortgages, unless other forms of investment are specifically sanctioned by the trustor. Other states, following the lead of Massachusetts, do not so circumscribe the trustee's investments, but stress prudence, care, and sound judgment. In some jurisdictions, clarification is still needed as to what rule is in force. Actually, however, the problems created by regulatory practices or possible judicial uncertainties are of much less importance now than formerly, as a consequence of the strong trend which has existed toward granting specifically in the trust instruments a broad discretionary investment authority.

Generalizations as to trust investment policies are difficult to make, not only because of the varied requirements of individual trusts, but because of substantial differences existing between policies followed in different parts of the country. Trustees in Boston, for example, have for many years looked with favor on the inclusion of equities in trust fund portfolios. On the other hand, trustees in the Far West have on the whole been unfriendly to equities. Until quite recently, the latter policy was probably more nearly representative of the country as a whole. The principal reasons for trustees avoiding equity investments appear to have been (1) disbelief in their suitability, because of lack of stability in their income payments and market valuation, and (2) long-standing tradition backed by statutes and court decisions.

Low yields prevailing on high-grade bonds, which caused income paid to beneficiaries to shrink seriously, together with the inflationary trends of recent years, have done much to modify the traditional coolness of trust departments toward equities. Whereas 5 to 5½ per cent was a typical income from a trust fund before 1930, 3 to 3½ per cent was more representative in 1948. The desirable policy seems to be one of open-mindedness toward all legitimate forms of investment—recognition that both common stocks and fixed-income securities have a place in well-planned investment portfolios.

The stocks of many American corporations have acquired a stability that has earned for them a place in the category of investments. Naturally, great discrimination must be shown respecting the companies selected, and a reduction in equities and increase in fixed-income obligations should be made during prosperous phases of the business cycle. A generous backlog of high-grade bonds and preferred stocks should be kept at all times as a guaranty of steady income. Only the common stocks of strong and seasoned companies which possess first-rate management and occupy a prominent place in one of the essential industries should be chosen. There should be a convincing record of stable past earnings and every prospect that this will continue.

In addition to seeing that the time is appropriate for acquiring equities, the trustee must consider whether the prices of those he desires to purchase are warranted by the performance and outlook of the companies in question and whether these securities are suited to the particular estates for which they are to be acquired.

If specifically instructed by the trustor to take advantage of the swings in the stock market, with the object of increasing the size of a fund, most trust departments would probably decline to act, since playing the market is inconsistent with the functions of conserving an estate and securing a steady income of as great size as is consistent with safety.

B. ENDOWMENTS

Nature and Scope of the Field. As commonly used, the term endowment refers to funds set aside to provide income for some philanthropic or altruistic purpose, as opposed to those employed for private or commercial purposes. The trustees to whom the endowments are entrusted are under moral and legal obligation to administer them in such a way that the principal shall be preserved and an income produced consistent with sound investment policy. The chief types of American endowments are religious, charitable, hospital, and educational. A number of large endowments administered by so-called foundations make their income, and in some cases a portion of their principal, available to the above-named institutions in the form of grants-in-aid for specific purposes.

The colleges and universities of the United States, particularly the private institutions, receive approximately one-fourth of their income from productive funds. If this income fails to keep pace with the needs of the institution, only a limited part of the deficiency can be supplied by increasing tuition fees. The competition from state-supported colleges and universities, with their low charges, places a decided limit on the point to which the great majority of privately endowed institutions can raise their fees. If additions to endowment fail to keep pace with the needs of private institutions, the only alternative is subsidies from the government at such price as it may exact, probably some measure of control.

Educational endowments, and nearly all others, have been the victims of a long-continued depression. Not only were they adversely affected by investment losses during the difficult years of the 1930's, but their income also fell as a consequence of the declining level of interest rates, which led to the calling of securities bearing attractive rates of interest and their replacement by others carrying a much lower return. In addition, they have for many years suffered from a curtailment in the flow of new gifts. High taxes on incomes and inheritances have played havoc with large-scale philanthropy in spite of the efforts of endowed institutions to persuade the well-to-do that a bequest to their endowment will reduce, by more than the amount of the bequest, the amount of taxes that the estate will have to pay.

As contrasted with trust funds, endowments have been relatively free from regulation by the states. They are also, as nonprofit organizations, exempt from taxation on their incomes. They are under no obligation to make a return for stockholders, and they are free from the menace of "withdrawals," which threaten banks, and of "policy loans," which can affect life insurance companies. They do not need to keep more than a fraction of their funds in liquid condition, for an endowment is not subject to withdrawal for any purpose. Unfortunately, some institutions have borrowed from their endowments in order to meet operating expenses during periods of depression. Unlike most business concerns, endowed institutions are rarely able to effect a sharp curtailment in expenses during such periods.

Mechanism of Endowment Management. The administration of the funds of educational, religious, and eleemosynary institutions has usually been in the hands of a finance committee or investment committee of the board of trustees. They have been quite uniformly honest and well-intentioned, but the degree of success achieved has varied widely. This has been due in some instances not so much to a lack of ability, or even of experience in financial matters, as to a lack of time to devote to the work, and to the slowness of action of members of a committee, who often live many miles apart and are unable to make decisions when they are needed.

The best results have been obtained when an investment expert has been employed as an officer of the institution, or when the services of a firm of investment counselors or a trust institution have been utilized. As in the case of a trust officer, it is desirable to retain an investment committee of the board, to whom the investment officer or outside expert reports. Unless adequate provisions of this sort are available, the important task of reviewing the portfolio may be neglected, and investments may tend to be less carefully selected.

The Investment Policy of an Endowment. One of the requisite first steps is the formulation, in writing, of a definite policy, its formal adoption by the trustees, and conscientious adherence to its provisions thereafter.

The objectives of investment policy are by no means the same for endowments as for other institutions. As we have noted, the chief goal in endowment management is maximum income consistent with preservation of the principal. Marketability is of minor consequence because, from their very nature, endowments are meant to be left relatively undisturbed, except as a review of the portfolio indicates the wisdom of disposing of certain holdings and the substitution of others. Since nonprofit institutions are not subject to income taxation, the acquisition of tax-exempt civil loans at the usual sacrifice in the rate of return would not be desirable. The last of the important objectives of investment policy, viz., appreciation, if achieved would be a godsend to the institution, but deliberate *striving for appreciation* involves a degree of risk taking that is not consistent with sound endowment management. The temptation to make profits by seeking to take advantage of the cyclical swings in the stock market is sometimes very great. It is entirely within the purview of conservative management to sell securities which have risen to a price out of line with their present or prospective yield and to substitute other equally sound obligations more reasonably priced or more suited to an approaching change in the business cycle, but care should be taken to see that profits registered in this process are not mistakenly treated as current income.

A broad picture of changing investment policies of college and university endowments over two decades is afforded by Table 9, which summarizes data compiled for 1926–1943 by the American Council on Education[5] and for 1946 by Scudder, Stevens & Clark.[6] This reveals a pronounced trend toward common stocks and away from bonds and mortgages. This trend was in existence before the depression of the 1930's, continued through it, and appears to be still in effect.[7] It must be

TABLE 9

DISTRIBUTION OF INVESTMENTS IN SELECTED ENDOWMENTS

(in per cent)

Institutions	Investment Medium					
	Bonds	Preferred stocks	Common stocks	Mortgages	Real estate	Other
13 institutions in Council's study						
1926	57.3	12.4	7.8	11.9	3.6	7.0
1931	50.0	11.4	12.3	14.9	2.9	8.5
1938	48.9	12.3	21.5	8.2	4.8	4.3
1943	44.7	12.2	27.9	6.0	3.0	6.2
130 institutions in Council's study						
1938	41 6	9.7	21.0	8.0	15.4	4.3
1943	38.0	10.0	25.5	6.3	13.9	6.3
59 institutions in Scudder, Stevens & Clark study						
1946	42.0	11.5	30.0	5.5	8.0	3.0

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[5] J. Harvey Cain, *College Investments under War Conditions,* American Council on Education Studies, Series III, Financial Advisory Service, Volume VIII, No. 21, Washington, September, 1944.

[6] *Survey of University and College Endowment Funds,* Scudder, Stevens & Clark, New York, 1947.

[7] See the summary, "How Universities Invest Their Funds," in the *Wall Street Journal,* May 4, 1948.

attributed primarily to increasing recognition given the investment qualities of the sounder common stocks as a class. In addition, in the later years, it reflects the effort of these institutions to protect themselves in part against a rising trend of operating expenses associated with rising commodity prices and salary costs.

To a significant extent, also, the trend toward common stocks in recent years has reflected a lack of satisfactory new bond offerings and the extremely low yields on those available. The Council's study showed that the yield obtained by a group of 45 institutions fell from 5.14 per cent of book value in 1926 and 5.27 per cent in 1931 to 4.40 per cent in 1938 and 4.27 per cent in 1943. The Scudder, Stevens & Clark study found an average yield of 4.01 per cent of book value for 59 institutions in 1946. At market value, the yield was 3.41 per cent.

Where endowments have adopted a sound investment policy and employed competent persons to carry it out, the record of accomplishments compares favorably with that of other institutional funds. In some instances, the results have been remarkably good. However, their managers will do well to remember that investment is far from being an exact science and, in consequence, particularly in view of the increased size of their common stock holdings, that they should set aside reserves for the losses which are bound to occur. Unwillingness to accept the loss even though an investment is recognized to have "turned sour" has in the past been a costly error for many institutional as well as individual investors.

Considerable attention has been given by institutional investors to "formula plans" for timing increases and reductions in equity holdings. When an investment officer wishes to convince his board of trustees of the need for lightening common stock holdings in a rising market or adding to them while prices are declining, he can make good use of the signals for action which may be given by such a prearranged balancing program. However, it seems best for him to use such signals as guides or suggestions for action rather than as inviolable commands. Neither fluctuations nor trends in equity values can be forecast with any assurance of success.

Among endowments known to have made use of formula plans are those of Yale University, Vassar College, Vanderbilt University, Kenyon College, and Oberlin College.[8] One of the best-known, the Yale plan, envisages a normal 30 per cent–70 per cent ratio between equity and fixed-income securities. Only high-grade bonds and preferred stocks are treated as fixed-income securities. In a rising stock market, the ratio of stocks is permitted to increase to 40 per cent; then it is reduced to 35 per cent by sales of stocks and purchases of bonds. In a falling market, no purchases of stocks are made until the ratio drops to 20 per cent. When that occurs, bonds are sold and stocks are bought to bring the ratio up to 25 per cent. Although this plan had been in operation since 1938 and had called for a reduction in common stock holdings during that year from 40 to 35 per cent, it was reported in 1948 that as yet no further action had been indicated.

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[8] For details see the studies of H. G. Carpenter and Lucile Tomlinson previously cited on page 136.

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Also the references given in the footnotes to this chapter.

PROJECTS

1. Present a list of the laws and regulations which govern the investment of trust funds in your state. Comment critically on their soundness and adequacy.

2. Obtain the list of investments of your college or university or of some other endowed institution in which you are interested. Draw up a statement of its investment policy. Make such an appraisal of the securities in its portfolio as a somewhat cursory inspection seems to warrant.

CHAPTER 14 Investment Policies of Banks

The Changed Composition of Bank Assets. The underlying structure of American banking was a heritage from the British banking system of the nineteenth century. The so-called short-term, self-liquidating commercial loan was the backbone of banking assets. Loans for fixed-capital purposes were taboo, being inconsistent with the fact that deposits, the principal liabilities, were payable on demand. In actual practice, commercial banks, by the constant renewal of the short-term notes of certain borrowers, virtually had a permanent stake in their affairs.

The original Federal Reserve Act, although it confined the credit extensions of the twelve Reserve banks to short-term commercial paper, recognized the fact that the state banks with which the national banking associations had to compete had become department stores of finance. Accordingly, it permitted the operation of savings departments and authorized the making of mortgage loans by national banks. From time to time, the scope of credit extension outside the original short-term commercial obligation has been broadened by legislation and by practice until today bond investments, the financing of the ownership of farm and urban real estate, the purchase of automobiles and other consumer goods on the easy payment plan, and serial capital loans made to business enterprises are important sources of bank income. This digression from the old orthodox adherence to the short-term commercial loan was furthered by persistent shrinkage for many years in the volume of that type of paper.

Along with this decline in the volume of commercial loans came a decided drop in the rate of interest paid by borrowers. Urban banks have in recent years loaned their funds to large commercial borrowers at rates as low as 1 per cent in contrast to 5 per cent formerly. The fact that such loans were both scarce and productive of little net profit accelerated the spread of earning assets over new fields, particularly during the years of subnormal business activity in the 1930's. Actually, despite all efforts to find new outlets, a huge stock of idle funds accumulated in the banking system during those years. Interest is no longer paid on demand deposits, and the rate on time funds has declined to a very low figure, but, until deposits shot up and demand for money grew in connection with the financing of World War II, it was extremely difficult to maintain profits at a satisfactory level.

With the decline in demand for loans on the part of their customers, banks turned increasingly in the 1930's to the bond market as an outlet for their funds. This trend continued in the 1940's, when they purchased a huge volume of government obligations in connection with the financing of the war. Whereas in 1929 only one-fourth of the average bank's earning assets were bonds, a decade later such investments totaled more than half of earning assets, and in 1948 they accounted for two-thirds. The last ratio existed despite a large post-war expansion in commercial and other loans. As will be seen in Table 10, the average bank bond account at the beginning of 1948 was nearly 90 per cent in obligations of the federal government, including short-term paper as well as bonds. This situation reflected in part a scarcity of suitable corporate issues, but more significantly the very ample supply of government obligations and the attraction they possess for bank investment purposes because of superior marketability and safety, as well as their availability as collateral for borrowing if necessary from a Reserve bank.

Further inspection of Table 10 will reveal, as might be expected, striking differences in the distribution of loans and investments of the large "money market" banks of New York and Chicago as compared with those of the smaller "country" banks. Figures for large cities outside of New York and Chicago would show a still different distribution. This serves to emphasize the different kinds of services performed and deposit liabilities carried by different types of banks and the need for investment policies which are in many respects tailor-made to fit the problems of the individual institutions. Differences in investment policies are actually of course greater than the table suggests, for the reason that it gives no indication of the maturities of the bonds held. Available data on maturities of Treasury bond holdings, for example, point to relatively larger holdings of long-term bonds by country banks than by New York and Chicago banks.

For the present, there seems to be little likelihood of a marked decline in the proportion of investments to loans. An effort has been made by Federal Reserve and Treasury authorities to curb substantial new expansion in bank loans. Moreover, the federal government's current and prospective financial requirements are such as probably to preclude important further debt retirement for some time.

TABLE 10

LOANS AND INVESTMENTS—ALL INSURED COMMERCIAL BANKS IN THE UNITED STATES*

December 31, 1947

(amounts in millions of dollars)

	All Insured Commercial Banks		New York City and Chicago Member Banks		Country and Nonmember Banks	
		%		%		%
Commercial Loans	18,012	15.8	6,779	26.6	4,145	7.9
Agricultural Loans	1,610	1.4	3	. .	1,381	2.6
Security Loans	2,013	1.8	972	3.8	388	.7
Real Estate Loans	9,266	8.1	157	.6	5,966	11.3
Consumer Loans	5,654	4.9	713	2.8	2,971	5.6
Other Loans	1,028	.9	356	1.4	305	.6
TOTAL LOANS	37,583	32.9	8,980	35.2	15,157	28.7
U. S. Treasury Bills	2,124	1.9	1,134	4.5	616	1.2
U. S. Treasury Certificates	7,552	6.6	875	3.4	4,319	8.2
U. S. Treasury Notes	5,918	5.2	806	3.2	3,212	6.1
U. S. Treasury Bonds	52,334	45.7	12,045	47.3	24,739	46.8
U. S. Guaranteed Obligations	14				10	
TOTAL U. S. GOVERNMENT OBLIGATIONS	67,941	59.4	14,862	58.4	32,896	62.3
Obligations of states & political subdivisions	5,129	4.5	851	3.3	2,937	5.6
Other securities	3,621	3.2	789	3.1	1,779	3.4
TOTAL INVESTMENTS	76,691	67.1	16,501	64.8	37,611	71.3
TOTAL LOANS & INVESTMENTS	114,274	100.0	25,481	100.0	52,768	100.0

* Source *Federal Reserve Bulletin*

The government of the United States, unlike that of many other nations, has pursued intermittently a policy of debt reduction. As a consequence, the volume of government bonds available for investment began to decline after the Civil War and by 1900 was so small as to make it difficult for a new national bank to obtain the United States bonds it needed as security for its circulating notes. The absence of savings accounts and the relatively heavy demand for commercial loans, in fact, precluded any considerable interest in acquiring investment securities. An amount equal to the capital stock paid in was normally invested in government bonds to secure circulation. The remaining assets, aside from those represented by physical plant after the requisite cash was set aside, were loaned to customers. From time to time, additions were made to the federal debt, principally for the purpose of financing a war or crisis, but the policy of reducing the debt soon created a new scarcity in government securities.

It was only with the entry of the United States into World War I that a large volume of government bonds was readily available to the banks. Meanwhile the decline in the percentage of commercial loans, which had been in progress mildly for a generation, underwent marked acceleration with the shift to noncommercial loans and investments which we have described.

In 1917, Congress, in order to facilitate the distribution of the heavy war borrowings of the Treasury and to recognize the growing importance of these obligations in the earning assets of member banks, broadened the eligibility provisions of the Federal Reserve Act so as to permit member banks to borrow from a Reserve bank on the security of government obligations.

In 1935, the bars were let down completely so that members might present as collateral any assets which are acceptable to the lending Reserve bank. This is a frank recognition of (1) the radical change that has occurred in the composition of earning assets in American banks, and (2) a shift toward dependence on *central bank policy* and away from *type of credit instrument* as the mainstay of liquidity. It also modifies the problem of backing up a bank's cash with paper which can readily be converted into cash without loss. The ability to shift a wide assortment of earning assets to one's Reserve bank when additional cash is required conceivably lightens the necessity for holding such extremely liquid paper which obtained before 1935, but no well-run bank will lower its standards by relying on such an alternative.

Functions of an Investment Portfolio. The well-managed bank looks on its assets, ranging from cash reserves through the various types of loans and investments, as providing, first, for the safety at all times of the deposits entrusted to it and, second; for the best earnings on its capital funds consistent with such safety. The proportions in which its resources are divided among the various classifications of assets should be related primarily to the characteristics of its deposit liabilities, that is, their relative permanence, normal pattern of seasonal and other fluctuations, concentration in large accounts or in certain industries, and so forth. These characteristics should not be the subject of guesswork; they should be determined by a careful, continuing analysis of deposit accounts.

The *primary reserves* of a bank are its vault cash and its legal cash reserves, maintained in the form of deposits at the Reserve bank, if it is a member of the Federal Reserve System, or at correspondent banks. Primary reserves may include also excess holdings of cash or balances with correspondents, beyond the minimum legal requirement. It is desirable as a practical matter to maintain at least a small excess of this sort, determined on the basis of experience, as a cushion required for the comfortable operation of the bank.

We shall consider a bank's investment portfolio as made up of two parts, a liquid *secondary reserve* and a more or less permanent *investment account.* In practice, many banks will make no such formal segregation, but their portfolio will be designed to cover both functions. In the secondary reserve, stress is laid on liquidity or shiftability with yield relatively unimportant, whereas the objective in the investment or bond account is to supplement the bank's earnings from loans and services as much as is consistent with a high degree of safety. The investment portfolio has taken its place permanently as an important source of bank income. In the sections which follow we shall examine at some length the objectives and problems which the performance of these two functions entails.

The Secondary Reserve. A bank is subject to certain contingencies, and it is its job to be ready to meet them at all times. Depositors may, under stress of seasonal, cyclical, or other conditions, withdraw unusual amounts, of cash, or borrowers' demands for loans may undergo a marked increase. The bank should be able to provide cash to meet such withdrawals or loan disbursements without disturbance of its investment program and possible establishment of losses through forced sale of obligations originally acquired for longer term holding. Yet, in order to make a reasonable profit, it is desirable that unemployed cash be kept at a minimum. It brings no return. In fact, the portion in the vault involves the expense of safekeeping. The ideal situation is "to eat one's cake and have it too," that is, to back up the primary reserve (cash and deposits with other banks) with a secondary reserve consisting of a portfolio of highly liquid or easily shifted loans and investments. The bank's secondary reserve might be described as that portion of its earning assets which can readily be converted into cash without material loss, if the occasion arises. One should not gain the impression from what we have said about the act of 1935 that there is no longer any need for the maintenance of secondary reserves by member banks. After all, the Reserve banks themselves are under obligation to stay in a liquid position. Otherwise, they could not stand ready to perform their function of supplying the emergency credit needs of the country. Broad as is the wording of the act of 1935 with respect to collateral acceptable at the Reserve banks, it is obvious that they cannot allow their assets to become frozen and that the loans they make will be expected to be temporary.

Consequently, there still exists the necessity for the banks of the country to set aside, in the secondary reserve, loans and investments of prime quality and short maturity which can be converted into cash instantly without significant loss. They will then be fortified against unexpected withdrawals by depositors or increased demands for accommodation by borrowers and will still be realizing some income on the reserve set aside.

The size of the secondary reserve desirable for a given bank depends not only on the volume of deposits but on their volatility. Likewise, the extent of fluctuations in its loans is a factor. Banks in residential communities made up of people with steady incomes and not seriously susceptible to the seasonal and cyclical changes of business are not so likely to experience serious fluctuations in deposits or loans. Consequently, secondary reserves of moderate size will ordinarily afford ample protection against the unforeseen. A preponderance of time over demand deposits should normally lessen the relative size of the secondary reserve required, but, in spite of the legal right to demand notice of withdrawal from time depositors, the banks follow the practice of paying them on demand. Also the presence among the deposits of large accounts of a temporary nature imposes on the bank in question the necessity of keeping larger primary and secondary reserves. For example, public deposits, including those of the federal government, are highly volatile, and should normally be placed entirely in these reserves.

Another determinant of the optimum size of a given bank's secondary reserve is its ratio of capital funds to deposits. The Federal Deposit Insurance Corporation has set up a 1 to 10 ratio as a "rule of thumb" guide, but with the tremendous expansion in deposits in recent years many of the best institutions have greatly exceeded this ratio. There has been some expansion in bank capital through the sale of additional shares, but in general conditions have not been propitious for new offerings, and improvement in capital ratios has had to wait on the slower process of accumulation out of earnings. As a result, each dollar of deposits is more likely to be protected by 6 or 7 cents in capital funds than by the 10 cents set as a standard by the regulating authorities.

All this means that if there is a substantial shrinkage in the assets the cushion which the capital funds afford is much less likely to prove adequate to protect depositors against loss. Banks with abnormally high ratios of deposits to capital, therefore, should maintain more than normal secondary reserves, inasmuch as the risk of shrinkage in the value of longer term loans and investments is then a more serious hazard. Similarly, for example, a bank with a maximum of real estate and instalment loans and a minimum of the self-liquidating commercial variety needs to provide a more generous secondary reserve.

Moreover, many banks have substantial amounts tied up in costly bank buildings or other special properties. The presence of such situations calls for more insistence on an ample secondary reserve. As owners of large holdings of high-grade securities, banks are particularly vulnerable to the effects of a stiffening in interest rates and a consequent decline in the market values of their holdings. A decline of even 10 per cent would prove extremely embarrassing to the capital position of a great majority of our banks. It is obvious that adequate secondary reserves should be carried to supplement such protection as the capital funds afford.

No definite percentage of the earning assets can properly be designated as the optimum size for a secondary reserve. Not only does it differ for different banks, but also, in the same bank, shifts in the business situation or other external factors will dictate a change in the amount. In a savings bank, a secondary reserve of 10 per cent of deposits would normally be ample. In some commercial banks, with a large volume of loans, however, the secondary reserve may actually be considerably larger than the investment account.

The chief constituents of the secondary reserve should be such prime-quality, short-term obligations as the bills and certificates of indebtedness of the federal Treasury, bankers' acceptances, prime commercial paper, and call loans. Other highest quality securities with short maturities may properly be acquired for the secondary reserve or shifted to it from the regular investment account as they approach maturity. Even the obligations of the United States, though they are of the highest quality, should not be placed in the secondary reserve if they have sufficiently distant maturity to encounter the risk of an appreciable fall in market value should interest rates rise.

It was for a number of years extremely difficult for banks to find a satisfactory supply of short-term paper of requisite quality to employ in secondary reserves. As a result, the return obtainable on such obligations fell almost to the vanishing point. Nevertheless, the governing purpose of the secondary reserve is to provide unquestioned liquidity, and the soundly managed bank will not lose sight of this aim in an effort to improve income.

In recent years, the Board of Governors of the Federal Reserve System has sponsored on several occasions, under the guise of a means of controlling inflationary credit trends, the imposition of a "special" or secondary reserve requirement on commercial banks. Its proposals have called for this reserve to consist either of cash on deposit with a Reserve bank or of short-term obligations meeting certain specifications regarding quality. They have embraced also the authority to set a fixed limit on bank holdings of long-term securities. Such portfolio dictation would obviously be a powerful instrument of control in the hands of the Federal Reserve authorities. Whether granting this power would be wise is seriously open to question. It has been demonstrated before that the judgment of the authorities is not infallible. Actually, such a special reserve would not be a satisfactory substitute for the traditional secondary reserve, for the reason that its requirements, being a percentage of deposits, would shrink less rapidly than deposits in the event of substantial withdrawals. The result would be that securities outside the reserve would also have to be sold in order to raise the necessary funds.

The Investment Account. If a bank has set aside adequate primary and secondary reserves, it can properly invest the remainder of its funds not needed for accommodating its borrowing customers in a more or less permanent bond list. Though relatively good marketability is desirable, it need not be stressed so strongly as it is in the selection of securities for the secondary reserve. Furthermore, since its object is to increase earnings as much as is consistent with high quality in the portfolio, obligations bearing a higher yield and having a longer term can be acquired. So long as the maturity dates are staggered, longer term bonds can safely be included in the investment portfolio. Here again the ratio of the particular bank's capital funds to its deposit liabilities is an important determinant.

The use of the term "permanent" in connection with the list does not imply that purchases can be put away and forgotten until they either are redeemed or reach maturity. Here, as everywhere else in the field of investment, eternal vigilance is necessary. The decline in the quality of certain "triple A" railroad securities to a rating of C or worse is indicative of what can happen to a bond. A decline in the market price of a bond for reasons other than deterioration in its quality is not a matter of serious concern, for there is then little danger of its not being paid in full at maturity. As we shall see later, the present practice on the part of government supervisory officials is to ignore declines in the market value of prime securities held by banks. On the other hand, securities of a speculative nature must be carried at cost or market, whichever is lower or, if their quality is seriously open to question, must be sold or even completely written off. In order that such an eventuality shall not be allowed to impair the capital funds which stand as a buffer between the depositor and a shrinkage in his funds, an investment reserve should be created out of profits from the sale of securities or, if need be, out of the general earnings of the bank. Such a reserve not only protects the capital funds from impairment but supplements the primary and secondary reserves. A study of banking statistics covering a long period of years shows that many banks incurred substantial losses of principal in their investment accounts but that reserves to absorb these losses were conspicuous by their absence. Though no line of business can expect to have loss reserves adequate to cover completely such a debacle as occurred in banking in the early 1930's, the ordinary run of losses can be ascertained and an amount of reserve adequate to meet them provided.

A valuation reserve, as distinguished from a loss reserve, may also be created, or the two purposes may be combined in one reserve account. Frequently, a bank will write off immediately all premium on bonds purchased, even though their quality is of the highest. Some banks go further and reserve on their books an additional sum adequate to cover all depreciation in market values which would occur if a general rise in interest rates were to cause bond prices to fall to some arbitrarily selected higher yield basis.

The federal regulatory authorities are insisting more than ever that banks refrain from converting profits from the sale of securities into net earnings until all losses have been provided for and substantial reserves accumulated. Because of the wide differences existing among banks no arbitrary percentages have been specified, but the regulatory authorities reserve the right to pass on their adequacy.

Profits gained from trading in bonds have been an important source of income to some banks, but with the successes recorded in this type of operation go corresponding losses. Unless held within narrow bounds, where it amounts mainly to switching between comparable issues when their prices get temporarily out of line, this is not investment but speculation, and, no matter how skillfully it may be carried on, it is not a proper sphere of activity for a bank investment account. The management of a bank should never lose sight of the fact that, instead of the 1 to 1 ratio of net worth to debt, regarded as normal in some lines of business, practice has approved 1 to 10 and higher ratios for banks. In other words, more than 90 per cent of the assets of the typical banking enterprise are offset by debt owed to its depositors. Any fortuitous profits gleaned from the sale of securities should be placed in the investment reserve to absorb losses which are bound to occur even in the best-managed portfolios. The bonds which present the greatest opportunity for appreciation are not of a quality fit for the employment of depositors' funds. Moreover, such bonds must, according to current supervisory practice, be carried at their average market price over a period of a year and a half, and in the computation of the "net sound capital" of the bank one-half of any shrinkage in market price must be deducted.

The wave of bank failures in the early 1930's was by no means entirely due to bad loans. Much of the unfortunate condition of American banking assets at that time can be attributed to the fondness of the smaller banks, particularly, for second-rate bonds or worse. The steady decline in the yield of high-grade securities, coupled with a heavy shrinkage in customer loans, impelled bankers to take greater chances with their bond accounts. As holders of a substantial percentage of railroad, real estate, and other bonds which fell into difficulties, the banks suffered serious losses.

The investment account is somewhat unfortunate in occupying the position of a "filler in." Its function is to employ funds left over from customer loans and the reserves. The unfortunate aspect of the matter is that, when loans are at a low point, idle money is plentiful and bonds which will provide satisfactory safety become scarce and costly. It is far better, however, to take the current yield on a bond of high quality rather than to allow money to lie idle or to risk it on purchases of doubtful quality.

With its loans, the bank's customers take the initiative, although the officers can to some extent influence their amount and type. With investments the matter is wholly within the discretion of the management—subject, of course, to such restraints as the government imposes.

When interest rates are low and prices of prime longer term bonds, accordingly, are high, the management of an investment list is confronted with a serious dilemma. If these bonds are sold and the proceeds placed in securities of the secondary reserve type, the income will decline drastically while the management is waiting for a rise in interest rates to serve as the signal to re-enter the long-term market.

When higher interest rates come, the holder of low-yield, long-term bonds will take an actual loss of principal if it undertakes to convert them into new higher rate obligations. However, this rise may be deferred so long that conversion of long-term issues into cash or short-term obligations would be likely to cause a serious reduction in bank earnings. It would, therefore, seem better to continue holding longer term issues, well spaced as to maturity, even if it meant foregoing the purchase of some higher yield investments later on. The staggering of maturities will place in the hands of the investment officers a continuing opportunity to take advantage of current money market conditions. In the long run, the best results are likely to be obtained by regular reinvestment of funds in this fashion at the going rate for prime paper.

A sound investment account for a commercial bank would have the following characteristics: (1) no item of less than first-grade quality; (2) maturities staggered so that the average length would be no more than five years; (3) ample diversification, both geographical and by type of issue; (4) the total of the fund kept down to a point consistent with the size of the buffer provided by the bank's capital funds in general and its investment reserves in particular. This policy should apply regardless of the presence of savings deposits in the bank, for the reason that a bank also holding demand deposits is as a practical matter precluded from enforcing delays in the withdrawal of savings deposits in times of pressure.

For a savings bank, however, a somewhat less liquid condition is entirely appropriate, and a greater proportion of its funds can be invested in long-term bonds. Quality standards should be equally high, but ready marketability is of less importance. We have noted already that the secondary reserve of a savings bank is usually small. Investment of as much as two-thirds of its investment account in long-term bonds would under most circumstances be reasonable. In a savings bank, however, just as in a commercial bank, the nature of the deposits should be subjected to careful analysis.

The huge volume of debt of the United States Government now outstanding, together with the relative paucity of prime-quality corporate flotations, has resulted and, so far as can now be foreseen, will result in a preponderance of federal securities in the bond accounts of our banks. Not only is the supply large but also marketability is excellent, and selection for a portfolio does not involve the analytical skill required in the case of corporate issues or even those of the lesser governmental agencies such as municipalities, school, sanitary, and highway districts. Moreover, the Federal Reserve authorities and the Treasury, if unfavorable conditions threaten the market for government bonds, will seek actively to correct them, and they probably have the power to do so under most circumstances. The price support undertaken on so vast a scale when the market weakened in 1947 and 1948 was an example. Of course, corporate bonds also benefit indirectly from such action but not to so great an extent.

Under the Banking Act of 1935 and the regulations growing out of it, a bank can employ both its money bonds and other prime investments as collateral in securing accommodation at a Reserve bank. As we have indicated, too, the regulations of the office of the Comptroller of the Currency and the leading state banking departments favor the maintenance of high quality in the contents of the banks' investment portfolios.

The question naturally arises whether the predominance of the obligations of one debtor (viz., the United States) is not a violation of the principle of sound diversification of risk. It almost goes without saying, however, that by virtue of its power to levy taxes and otherwise to exert its authority over everything within its confines the federal government offers a security and risk diversification superior to any of its creatures.

What we have just said of issues of the federal government applies in somewhat lesser degree to the bonds of the several states and the minor governmental subdivisions. Not all of these so-called "municipals" are suited to bank portfolios. In fact, only those which are backed by ample and varied taxable resources and have a record for meeting their obligations at all times should qualify. Here adequate geographical diversification must be secured, and a good over-the-counter market must be assured.

The possible tax advantages to be obtained through the use of high-grade municipals should of course be carefully weighed, for the income which counts is net income after taxes. Every investment officer should be thoroughly familiar with the various possibilities for improving income made available in the current federal income tax laws, including especially the provisions governing capital gains and losses. There are many aspects of this subject, but it may be observed that only fully taxable bonds should be considered for registering capital gains. Bond profit for a bank is normally nothing more than future income taken in advance of maturity,[1] and it is of course better in the case of tax-exempt issues to take this income free of tax over the years to maturity rather than to pay a capital gains tax. The taking of losses on tax-exempts may, however, under certain circumstances be advantageous.

In its investments in other than government obligations, a bank should as a general rule confine its purchases to seasoned issues and those of relatively large-sized and well-known issuers, though an exception might be made for the securities of one's home community where the officers of the bank are thoroughly familiar with the whole situation and can watch for any unfavorable developments.

Investment Policy and the Cost of Funds. It is now generally agreed that too many banks in the past placed the cart before the horse by employing the rate paid for deposits as the starting point and then trying to obtain a sufficient return on their investment portfolios to be able to make a reasonable margin over the amount paid for deposits. Obviously, this subjected the management to the temptation of shading the quality of loans and investments in order to secure the desired rate of return. The trying days of the 1930's taught bankers that they had been paying too much for deposits. Accordingly, there has been a decided change in that respect. The federal laws now prohibit the paying of interest on checking accounts, and the rate paid on time funds is subject to federal regulation. Interest paid on savings has been reduced to 25 to 50 per cent of the former rates. Banks have found that a cut in the rate has little influence on the volume of funds offered by depositors. In fact, a large increase in deposits, in spite of the low rates, has enabled the stronger banks to earn a volume of profits comparable to the amounts formerly earned on a smaller fund employed at higher rates.

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[1] Thus a holding bought on a favorable yield basis, when interest rates were higher, is sold at a profit at the current market. However, the proceeds must then be reinvested, also at the current market, at prevailing lower rates. If maturities are the same, the net effect is to show a current security profit approximately equal to the sum by which return on the original investment would, over the period to maturity, have exceeded that to be received on the new investment.

The prevailing policy today, and the sounder one, is to employ the bank's funds as profitably and fully as is consistent with a high regard for safety. Then, after all charges have been deducted, consideration of a reasonable return to stockholders will determine what amount the bank is warranted in paying for the time funds of depositors.

Management of the Investment Portfolio. Responsibility for the selection and management of the investments of a bank should rest with some one properly qualified officer. The shift in banking assets away from commercial loans and into investments left many banks with an imposing array of high-powered lending officers well qualified to grant accommodation to customers but entirely lacking in training in the field of investment. They nevertheless too frequently have constituted the "committee on investments," delegating the "hack work" to one of their number or to some youthful subordinate. Since authority to act has not been delegated to any one individual, the bank frequently loses an opportunity to obtain a portion of an offering when a relatively quick decision needs to be made. A more important consideration than this, however, is the fact that, whereas there is some virtue in an officer's submitting his findings to a group of his colleagues, even though they may not be specialists in the field in question, decisions respecting the investment portfolio of a bank should be the real responsibility of a mature and capable investment specialist.

Every bank, no matter how small, should have a well-defined investment policy, set down in writing and presented to the officers and directors for their approval. This statement should set forth the standards to be maintained and the general procedure to be followed. It is frankly admitted, of course, that a small bank with but one or two officers cannot afford financial specialists. In this case, the operating officers will have to acquire all the knowledge they can about the science of bank investments and rely on city correspondents or professional investment counsel for help. They should always make sure that such advice is wholly disinterested.

The direction of a bank's investment portfolio is a more difficult task than that of making loans to customers. The intimate daily contact, continuing through the years, which is characteristic of the latter is lacking in the former, but just as thorough-going knowledge of the affairs of each debtor represented in the portfolio is essential. Not only must the bank be in a position to acquire and digest full information at the time of a prospective purchase, but eternal vigilance is also required so long as the bond in question is retained in the portfolio. In addition, the managers of the portfolio must know how to select and supervise its holdings and maintain a constant and understanding contact with general business conditions as they affect the rate of interest and the prosperity of the enterprises whose securities it holds.

Intelligent planning of investment policy, the selection of the proper securities, the reviewing of the several holdings, the disposal of certain items and substitution of others all require not only well-qualified personnel but expensive equipment in the way of investment services and current financial periodicals. As we have indicated, if a bank is too small to afford these facilities and its officers not qualified to use them if it could afford them, it will have to rely on outside assistance. However, it cannot "pass the buck" to these sources of advice if things go wrong.

Sources of Investment Advice. Since only the relatively few large institutions can afford the personnel and equipment essential to the complete management of investment portfolios, officers of smaller banks have either undertaken to do the best they could unassisted or have leaned heavily on some city correspondent's investment department or on professional counsel. However, even though this advice may be the very wisest, such an arrangement cannot be satisfactory unless at least one officer of the bank acquires a considerable body of knowledge about investments and has the major responsibility in what has become one of the most important outlets for bank funds. That bankers are coming to recognize this responsibility is evidenced by the interest displayed by them in the efforts of the American Bankers Association and the several state bankers' associations to spread enlightenment in the field of investment.

Since thoroughly competent and disinterested advice is expensive and that obtained gratis is often worth no more than it costs, some banks have suggested that the twelve Federal Reserve banks inaugurate investment advisory departments as a part of their service to their members.

Such a move, however, would seem to be inconsistent with the fundamental purposes of the Federal Reserve System. It is a quasi-governmental agency charged with an important responsibility for the credit structure and the fiscal affairs of the government. Furthermore, it has been vested with a considerable degree of regulatory authority over the banks which would be seeking investment advice from it. One can see numerous chances for conflict between the System as an investment counselor and as a public authority responsible for the stability of the national credit structure and the good conduct of its advisees.

As we have indicated earlier, the best solution for the smaller bank seems to be for at least one senior officer to school himself in the business of investment management. Then, when he does seek the advice of an investment banker, a correspondent bank, or an independent counselor, he can do so in an intelligent and discriminating manner.

Before the Banking Act of 1933 required commercial banks to withdraw from the corporate investment banking business, the advice given to country correspondents was likely to be colored by what the investment department or affiliate had to sell. It is generally agreed that city correspondents are now rendering better service in this field, but, since a country bank quite uniformly has correspondent relations with several city banks, it should within reasonable limits seek the advice of all of them to make sure of freedom from bias in the case of given recommendations.

Many bankers have learned to their sorrow that buying bonds on the mere strength of the ratings given them by investment services is no substitute for careful independent analysis. Too often ratings have been based on past performance and have not taken sufficiently into account current factors of a distinctly unfavorable nature. The opinion of a good investment service should be respected, but it should not be set up as the sole guide to the management of an investment portfolio.

Government Regulation of Bank Investments. *National Banks.* Although occasional reference has already been made to the subject of public regulation of bank investments, the question is of sufficient importance to deserve further discussion. Both federal and state supervisory authorities have wisely taken the position that responsibility for the investment policies and practices of banks rests squarely on the shoulders of the officers and directors. They cannot shift the blame to the government, to a statistical service, investment counsel, or city correspondent.

In our discussion of types of securities suitable for inclusion in bank portfolios we made no mention of equities. Federal law forbids a national banking association to invest in the stock of any enterprise with the exception of (1) stock of the Federal Reserve bank of which it is a member and (2) that of an affiliated safe deposit company, although it may hold stock taken over in foreclosure of a collateral loan. It must own an amount of Reserve bank stock equal to exactly 3 per cent of its capital and surplus, whereas its investment in a safe deposit corporation is limited to 15 per cent of capital and surplus. Most of the state banking codes contain a similar prohibition. At first blush, this may seem like a relic of outmoded investment policy. If a bank were merely an investment company, that would be true, but the nature of its liabilities is such that it is not prudent for it to assume the greater risks involved in the purchase of stocks. Like that of the policyholder in a life insurance company, the depositor's contract with his bank runs in terms of a specific number of dollars; but, unlike those of the insurance company, the obligations of the bank are payable on demand.[2] It is no concern of the bank's if the purchasing power of the dollars has fallen, and it is not necessary for it to buy stocks as a hedge against inflation. True, a case might be made for owning stocks as an attempted offset to the losses in market value of prime bonds which accompany a rise in interest rates, but this procedure is far too hazardous. The law is right in making this impossible. It assumes that a bank will hedge against a decline in its investment list by other means, such as carefully staggering maturities, holding only such an amount of long-term obligations as is consistent with the nature of deposits and the risks it can take with its capital account, and maintaining a secondary reserve of sufficient size to obviate the need of sacrificing any of the bonds held in the so-called permanent investment account.

The Revised Statutes of the United States[3] place the investment policy of national banks definitely under government regulation. No distinction is made between the investments of the commercial and savings departments. National banks may purchase bonds under such rules as the Comptroller of the Currency may impose, but not more than 10 per cent of the paid-in capital and surplus shall be invested in the securities of any one obligor. An exception is made, however, of the issues of the United States or those of any of its political subdivisions payable from *ad valorem* taxes.

The Comptroller of the Currency has supplemented this provision with the following regulations:

(1) Securities must be reasonably marketable at a fair price, and the method used to distribute an issue must be conducive to satisfactory marketability. If easy marketability does not exist, the debt must not run for more than ten years, and serial or sinking fund arrangements must

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[2] As we have explained elsewhere, this is the *de facto* situation, although, legally, notice may be demanded of time and savings depositors.

[3] Section 5136, Paragraph 7.

provide for the retirement of at least three-quarters of the principal by the date of final maturity.

(2) A bank or trust company not affiliated with the debtor corporation must be named as trustee.

(3) No type of securities except "bonds, notes, or debentures" can be bought.

(4) If a security is in default respecting interest or principal, or is otherwise definitely speculative, it is not eligible for purchase by a national bank. The weakness of this provision is that there is no clear line of demarcation between "investment" and "speculative" bonds, hence such a regulation savors too much of management of the investment account by reliance on the ratings of investment services. In like manner, the government's rule that, in appraising the value of a bank's security holdings, those securities which are of A or Baa rating may be listed at par, whereas others must be figured at cost or market, whichever is lower, attaches too great importance to the ratings furnished by investment services, although no practicable alternative seems to be available.

(5) Where securities are bought at a premium a regular and adequate plan of amortization must be put into operation.

(6) In buying convertible bonds, or those with warrants, banks are forbidden to pay anything but the true investment value. That is, the value of the conversion privilege or that of the right to buy stock shall be entirely ignored.

Both the statutory restriction and the Comptroller's regulations, aside from the implied reliance on published ratings, are entirely sound and reasonable and contain no provision which a competent and prudent bank investment officer would not follow, even though no such regulations existed.

State-Chartered Savings Banks. Such rules as we have just considered apply to the commingled time and demand deposits of the so-called commercial bank. In the limited number of states in which state-chartered savings banks exist, somewhat more specific and exacting requirements are laid down. Since the several statutes differ from one another and are subjected to revision from time to time, it would hardly be feasible to examine each of them in detail. A hasty survey of the requirements of the State of New York—long a leader in this type of legislation—will give the reader an idea of what are regarded as suitable investments for savings.

First: The following classes of bonds are eligible: (*a*) the government and its subdivisions, (*b*) railways, (*c*) gas, electric, and telephone mortgage bonds, (*d*) real estate first-mortgage bonds. If, however, not less than twenty savings banks petition the State Banking Board to approve some other interest-bearing obligation, it may authorize the admission of this issue.

Second: On the theory that, other things being equal, size contributes to the strength of an obligation, savings banks are forbidden to buy the bonds of small municipalities, railroads, and public utilities.

Third: No bond is eligible for purchase which does not have a satisfactory record of freedom from defaults and a specified coverage of the interest requirements.

Fourth: There must be a generous margin of safety between the amount of the debt and the value of the property.

Within the limits laid down by the law and the supplementary rulings of the Banking Board, a savings bank is free to select such bonds as it thinks best.

Limited Value of Legal Restrictions. In spite, then, of these fairly comprehensive specifications, the management of the portfolio still calls for ability and experience on the part of the responsible officer or officers.

As with our whole system of bank regulation and supervision, so long as we allow Thomas, Richard, and Henry to become bankers, often with little capital and less in the way of personal qualification, and so long as the desire to get rich quickly overshadows for many individuals that of rendering a high type of banking service, we shall have to police our banking system. But no amount of passing of laws or setting up of officials to watch over the banks will ever guarantee a safe and efficient banking system. The quality of banking will still depend on the character, ability, and training possessed by the officers of our banks.

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PROJECT

Compile from the latest *Federal Reserve Bulletin* a list of the loans and investments of all insured commercial banks in the United States. Compare your list carefully with Table 10 in this chapter. Comment critically on significant changes since the end of December, 1947.

CHAPTER 15 Investment Policies of Insurance Companies

A. LIFE INSURANCE COMPANIES

The Nature of the Problem. The great bulk of life insurance is written on a level (equal) premium plan, as opposed to the assessment plan in which annual payments vary with the claims that have to be met. Since the death rate for the earlier years of life is small, the level premium payments in those years are considerably in excess of the amount needed to meet claims, but, as the years go by and the death rate for each successive year is larger than its predecessor, this excess decreases until in the later years the amounts provided by the annual level premiums are increasingly insufficient to meet the increasing death claims.

In order that there shall be an adequate fund to meet claims at all times, a *policy reserve* is created by investing the excess payments of the earlier years. In computing the amount of level premium a policyholder shall pay, the actuary takes into account the amount that the excess payments can earn at some arbitrarily selected percentage which is adjusted from time to time in accordance with changes in the rate of return that the company is able to earn on its investment portfolio.

Whenever the actual rate of return falls below the rate employed in computing premium payments, the company will find it increasingly difficult to meet its commitments to its policyholders. On the other hand, rising rates for money will tend to produce a surplus of funds and make it possible for the company to return larger sums to holders of participating-type policies in the shape of dividends or to stockholders in the case of the nonparticipating policies of stock companies. Savings may also result from reduced operating costs or from a mortality experience more favorable than the one on which the premiums were computed. However, if the decline in interest rates persists, the company will sooner or later find it necessary to revise upward the premium rates on its policies to conform with the decreased income it is receiving on its invested premium reserves.

A study of the twenty-six largest life companies by the Securities and Exchange Commission for the decade preceding World War II shows that they realized a gain of 3½ billions from favorable mortality experience, almost half a billion from loading charges in excess of actual expense, and three-quarters of a billion from sums forfeited by persons who surrendered policies or allowed them to lapse. However, they had to write off losses of 269 millions in their real estate loans and 624 millions in their stock and bond accounts as well as having to make new investments at declining rates of interest.

There are two kinds of life insurance companies: stock and mutual. The former belong to their stockholders, and most of the insurance they sell is of the nonparticipating type; that is, no dividends are paid to policyholders. All earnings in excess of the cost of operating the company and meeting policyholders' claims belong to the stockholders. However, some stock companies offer a policy which provides, in consideration of a higher premium, that the policyholder shall share in the company's earnings. In a mutual company there are no shareholders, all the assets and excess of earnings over expenses being the property of the policyholders. They elect the board of directors, who in turn choose the officers. Some mutual companies sell nonparticipating policies, but for the most part their policyholders participate in surplus earnings. Mutual companies control about nine-tenths of the assets of American life insurance companies.

The whole background of life insurance management is one of conservatism. Probably operating costs are overestimated in the "loading charge" added to premiums to cover costs. Careful selection of risks normally results in a mortality experience considerably more favorable than the one which formed the basis of the official "experience table" followed. Then, too, there has been a constant lengthening of the average span of life with the progress in medical and sanitary science.

Formerly, the financial problems of life insurance companies were not particularly difficult, but since 1929 a multiplicity of difficulties has developed. The great depression of the 1930's caused heavy demands for cash by policyholders surrendering their policies or desiring to obtain loans against them. Defaults occurred in the investment portfolio, particularly in the holdings of mortgages. Satisfactory outlets for incoming premiums and for maturing or retired issues of securities became increasingly scarce. During World War II the greatly increased percentage of the physical assets invested in United States Government bonds increased the general quality of the companies' security holdings but accentuated the existing decline in the percentage earned on the invested reserves. Rising operating costs, combined with this decline in percentage of investment return, resulted in a marked reduction in dividend payments to policyholders. The end of the post-war inflation spiral, coupled with rising rates of interest and a shift to more lucrative fields of investment, should result in the return of more generous dividend payments and a lower net cost of insurance.

Investment Policy of Life Insurance Companies. The chief objective in the management of the funds of a life insurance company is to have adequate funds with which to meet claims—which include not only the death, disability, and annuity payments called for in policies, but also the demands for the cash surrender value by persons canceling their policies, or for loans secured by the cash surrender value. Such an objective calls for a conservative investment policy. It implies the purchase of securities that will be safe and produce a definite and dependable income at all times and yet provide sufficient liquidity to take care of extraordinary demands for cash. However, the steady inflow of cash from policyholders and from a well-spaced arrangement of bond and mortgage maturities should seldom make it necessary to sacrifice any of the investments in order to obtain cash. Furthermore, most policies provide for a comfortable interval between the receipt of a request for a loan, or the surrender value, and the company's compliance. There is little excuse for a hedging against inflation since the obligations of the company are payable in definite numbers of dollars, whatever their purchasing power may be, and increasing cost of operation alone would not warrant such a policy.

A secondary objective is the providing of insurance to policyholders at as low a cost as is consistent with a high degree of safety. The higher the yield that can be obtained on the investments, the larger will be the proportion of the premiums that can be returned in the form of dividends to participating policyholders; but a safe contract with an insurance company is worth a great deal more to a policyholder's dependents than one which promises liberal dividends and involves the taking of unwise risks in the effort to earn them. With few exceptions, insolvency in the life insurance field has been the result of unwise investment.

Table 11 reveals the marked shift in the composition of physical assets that occurred over a twenty-year period in the companies comprising the Life Insurance Association of America.[1] Marked shifts among the several categories in the portfolios of these life insurance companies are due principally to three factors: (1) depressions, (2) changes in supply and demand, and (3) changes in state laws and regulations with respect to life insurance companies.

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[1] At the end of 1946, the assets of these companies amounted to 90.3 per cent of the assets of all life insurance companies in the United States.

(1) A severe depression or a permanent decline in the fortunes of a given industry or government causes heavy losses to investors and brings about a shift to more promising types of investment. The deterioration in the competitive position of the railroads and the acute distress suffered by owners of mortgaged farms and homes in the 1930's is clearly revealed in the change in position of their obligations and in the item "Real Estate" in Table 11, which rose several fold as the result of foreclosures by insurance companies.

TABLE 11

Composition of Assets of Life Insurance Companies *

	1925 %	1935 %	1946 † %
Farm Mortgages	20.1	5.4	1.6
Other Mortgages	26.5	21.8	12.7
TOTAL MORTGAGES	46.6	27.2	14.3
U. S. Government Bonds	6.7	15.0	47.8
State, County, Municipal Bonds	3.8	6.4	1.1
Canadian Government Bonds	2.6	2.6	2.9
Other Foreign Government Bonds	0.4	0.1	‡
Railroad Bonds	23.6	15.3	6.5
Public Utility Bonds	6.5	10.9	12.5
Other Bonds	1.2	2.9	7.6
TOTAL BONDS	44.8	53.2	78.4
Preferred Stocks	0.2	2.4	1.7
Common Stocks	0.8	0.6	0.5
Real Estate	2.0	9.6	1.5
Collateral Loans	0.1	‡	‡
Cash	1.1	4.2	1.4
All Other	4.4	2.8	2.2
TOTAL	100.0	100.0	100.0
Policy Loans and Premium Notes	12.1 §	14.9	3.8

* Compiled from *Best's Life Insurance Reports, Forty-Second Annual Edition, 1947–1948*, p v

† Estimated by the Life Insurance Association of America.

‡ Negligible

§ Per cent of assets

Another cyclical item is policy loans which increase greatly in a depression and drop noticeably in a period of marked prosperity like that following the end of World War II. Policy loans pay a relatively high rate of interest, but, in spite of that fact, insurance companies do not like to make them, since the average size is small and they often result in canceled policies. Banks, on the other hand, which have loaned on insurance policies at as little as 2 per cent for amounts of $1,000 or more, are soliciting the cream of the business, viz., loans large enough to be profitably handled.

Foreign securities, other than Canadian, never a favorite outlet for life insurance funds, all but disappeared from portfolios after the ravages of war and depression had changed their investment status.

(2) Changes in supply and demand were responsible for some shifts that occurred during the twenty-year period. For example, during World War II, the supply of municipal bonds declined while the demand from wealthy individuals for these tax-exempt sources of income increased. The rise in price which resulted lessened their attractiveness to the insurance company, especially as compared with that of the huge supply of United States bonds available. Obligations of public utility companies increased in amount and, *as a class,* came to be regarded as the most dependable of private corporate issues.

The spread among the yields of the various types of security suitable for life insurance company portfolios varies from time to time. At the height of World War II, for example, the prices of some of the highest grade corporate bonds rose to a point where the yield was slightly less than that of long-term government bonds.

Since the war, the outstanding volume of government obligations has tended to decline while heavy new offerings of corporate securities have been made. Naturally, this tends to widen the spread and divert investments in the high-grade field to corporate issues.

(3) As the laws and regulations imposed by a state with respect to investments of the life insurance companies within its jurisdiction are changed, the new provisions tend to be reflected in the portfolios of these companies. The permission granted to New York companies to buy preferred stocks and a later grant of the right to invest in income-producing properties have been responsible for at least a slight change in proportions. However, the item "Real Estate" (Table 11) includes such diverse items as the company's own home office property, real estate acquired through foreclosure, and housing projects developed as a source of investment income. A life insurance company of great size is a victim of the inflexibility that arises from the huge scale on which it must conduct its operations. It would be impracticable for the company to manage a portfolio consisting of a great number of small holdings; hence it must make a limited number of commitments, often running into millions of dollars each. Even though the company saw an advantage in

shifting from a given holding to another, the effect on the market might be so great that the management would be reluctant to make the change. In the mortgage field, loans insured by the Federal Housing Administration or guaranteed by the Veterans Administration have increased in favor with the life insurance companies. Not only are such loans made directly by the companies, but also a large volume is purchased from banks and other lenders.

Investment in Equities. In spite of the preponderance of bonds and mortgages in their portfolios, the life insurance companies in some of the states have been permitted to own and operate income properties and, in a few less important jurisdictions, to own common stocks. As we have noted earlier, a number of states have legalized the holding of preferred stocks subject to strict limitations as to amount and quality.

Of late years, there has been a growing disposition to question the advisability of maintaining so strict a ban on the ownership of common stocks. This has been fostered by several factors: (1) in other countries, insurance companies having this privilege have operated soundly; (2) the assets of life insurance companies have been growing much faster than has the supply of orthodox investment outlets; (3) the relatively low yield received on bonds tends to increase the initial cost of insurance policies and to reduce the subsequent dividends. It is generally conceded by even the strongest advocates of common stock ownership that the very nature of life insurance calls for strict limits on the percentage of stocks that it is safe to hold.

If the total volume of stocks were thus severely restricted and the choice limited to a diversified list of the strongest companies, the long-run experience should be entirely satisfactory. In years when generous dividends were received a substantial part could be used to build up reserves against later shrinkages in income and market value.

The other investment objectives associated with the purchase of equities (viz., greater chance for appreciation and hedging against inflation) should hold little interest for the management of a life insurance company.

Variation in Investment Policy among Companies. Table 12 illustrates the variations in policy among typical American companies. It presents in contrast the percentage of assets held and the rate of return received in each of the investment categories. Three companies in the United States and one Canadian company have been selected. The data[2] are for the year 1946.

Further evidence respecting the unusual extent to which the National Life Insurance Company has shifted toward heavy holdings of mortgages

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[2] Obtained from *Best's Life Insurance Reports, Forty-Second Annual Edition, 1947–1948.*

TABLE 12

VARIATIONS IN INVESTMENT POLICIES OF LIFE INSURANCE COMPANIES

	Metropolitan Life Ins. Co.		Northwestern Mutual Life Ins. Co.		National Life Insurance Co.		Sun Life Assurance Co. of Canada	
	% of assets	Rate earned	% of assets	Rate earned	% of assets	Rate earned	% of assets	Rate earned
Real Estate	3	5 6	1	6 5	None	..	1	4 2
Mortgage Loans	12	4 1	8	4	60	3 8	5	5
Bonds	80	2 7	86	3.1	34	3 1	81	3 3
Preferred Stock	1	4 4	2	3 5	3	3 9	3	4 4†
Common Stock *	None		None	.	None	.	7	.

* Common stock holdings of Sun Life Assurance Company were $84,000,000 out of assets of $1,288,000,000

† Rate earned on combined preferred and common stock holdings

may be gleaned from its report for December 31, 1947. Out of total assets of $366,761,099 the company had the following amounts in mortgage liens:

First Mortgages	
City	
Insured by FHA	$137,599,146
Guaranteed by Veterans Administration	40,794,081
Other	50,417,967
Farm	9,089,391
Total First Mortgages	$237,900,585
Second Mortgages	3,824,187 [8]

It is evident from even this very limited sampling that both lawmakers and high-grade companies may vary markedly with respect to the media they consider best suited to the common objectives of life insurance companies. If every company were compelled to adhere to the same "cut and dried" investment pattern, less progress would be made in the central task of providing the policyholder with protection at the lowest possible cost consistent with safety.

Public Regulation and Supervision. We have already indicated that life insurance companies in the United States are not free to follow their own inclinations with respect to their investments. To date, regulation and supervision of investments have been left largely to the states in which a company is domiciled, but considerable sentiment has developed in favor of the entrance of the federal government into the field. In the investigations by the Securities and Exchange Commission and the Temporary National Economic Committee, in 1939, stress was laid on the fact that practically all life insurance companies do an interstate business and that the bulk of the assets is so concentrated in a few hands as to enable them to wield inordinate financial power. Furthermore, premium receipts have grown until in recent years they have tended to absorb all the available securities of certain classes. The Federal Home Loan Bank Board estimated that in the year 1947 alone the assets of the life insurance companies in the United States increased by almost 4 billion dollars or 8.1 per cent.

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[8] All guaranteed by the Veterans Administration.

The degree of state regulation and supervision varies considerably, but in the group of eleven states in which virtually all the twenty-six major companies have their home offices the general philosophy underlying regulation is reasonably uniform. All states approve loans on real estate, first mortgages, and trust deeds. Bonds of railroads, gas, electric, and telephone companies meet with general favor. The long-standing prejudice against preferred stocks and industrial bonds has lessened very materially, but the ban on common stocks still persists in most jurisdictions.

For some years the National Association of Insurance Commissioners has adopted a common plan for the valuation of the assets of the life insurance companies of the United States. Market value on December 1 must be used for all stocks, other than those of insurance companies and subsidiaries, and all bonds, except "the full faith and credit" obligations of the United States and Canada or one of their political subdivisions provided that they are not in default. The excepted securities may be carried at their face value. Though all the states allow the respective managements of the life insurance companies to make their own choices of securities within the general classes approved, provided that certain tests can be met, in practice the examiners from the state commissioners' offices scrutinize the lists in the course of their periodic examinations of the companies' affairs. Any items deemed unsound will be reported to the commissioner for appropriate action. Most of the leading companies make complete lists of their holdings available to their policyholders and thus subject their investment policies to appraisal by the public as well as by the supervisory officials of the states.

The state of Texas requires that three-fourths of the reserves on policies written on the lives of residents of that state must be invested there. This has run counter to the ideas of diversification held by certain companies to such an extent that they sell no insurance in Texas.

With respect to general investment procedure, a great variety of regulations has been placed on the statute books of the several states. The principal ones restrict the percentage of a company's capital that can be invested in a single class of obligation such as real estate mortgages, forbid unsecured loans, or prohibit the payment of fees to officers or directors in connection with the making of investments.

Since so large a portion of the business of the typical life insurance company is interstate, the federal government would seem to be the logical source of regulation and supervision. Subjection to the laws and examinations of so many separate jurisdictions involves a considerable waste of time and money on the part of the companies. Although the standards of regulation maintained by the leading states are high, a single central supervisory authority working under one set of laws would bring conditions in the less favored jurisdictions up to standard.

B. FIRE INSURANCE COMPANIES

Reasons for Popular Interest. In the life insurance field, the stock companies have only a minor share of the business and are too much restricted in their investment operations to arouse any great degree of interest in their shares on the part of persons who desire to reap the benefits of the wide diversification and considerable freedom of choice which investment companies enjoy. Fire insurance companies likewise are not investment companies. Their business is underwriting property risks. The investment of their surplus and premium reserves is incidental to their main task. Nevertheless, many persons have come to regard the ownership of their shares as participation in well-diversified and skillfully managed portfolios. As a consequence, the unusual interest in the investment policies of fire insurance companies is due to factors other than concern over their ability to meet their contractual obligations to their policyholders.

The Nature of the Problem. Early insurance underwritings were simply joint acceptances of fire or marine and other risks by a group of individuals who shared the premium payments and the losses. When companies were organized to perform these functions, it became necessary to provide capital or guaranty funds to give assurance that their losses would be met. Since these capital funds were not needed for normal payment of claims, but rather as reserves against extraordinary losses, their investment soon became an important activity of the companies.

In addition to capital funds, which have at times accumulated to great size, insurance companies benefit from the use of sums held as loss reserves and as "unearned premiums," which are premiums collected in advance for a period not yet expired. Fire insurance premiums are more frequently paid for three years in advance, though contracts of other lengths are written. As the unearned premiums are constantly replenished through the writing of new business and renewal of expiring contracts, they constitute a sizable and more or less permanent investment fund.

The problems of fire insurance companies differ from those of life insurance companies in several particulars. (1) An insured person's eventual death is a certainty, but he may never sustain a loss on the property he insures. (2) Fire insurance contracts are of relatively short term, whereas the ordinary life insurance policy extends over the entire life of the insured. (3) Notwithstanding the risks of epidemics, disasters, and even wars, the life insurance companies are not so vulnerable to huge and sudden losses as are the property insurance companies to which some holocaust, like that at Texas City in 1947, may cause many millions of dollars of loss within a relatively few hours. (4) When a fire insurance policy matures, all obligation to the insured comes to an end, whereas the life insurance company must make provision for the settlements that are called for in a matured contract. (5) There is no such thing as a policy loan in the fire insurance field, whereas a life company must be in a position to make such loans to any policyholder to the full extent of the cash surrender value of his policy. (6) Unlike the contract of a life insurance company, which calls for the payment of a fixed number of dollars, regardless of their purchasing power at the time, a fire insurance company's contract obligation is to restore damaged property to a condition equal to that which obtained before the fire loss occurred. In a period of marked increase in building wages and materials the added outlays necessary may play havoc with the company's income. The company's maximum liability, of course, does not exceed the face value of the policy.

Investment Policy. Though a high degree of safety must be sought in the selection of media for the portfolios of fire insurance companies, they can with impunity shift to a greater percentage of equities when business conditions are favorable. Liquidity is of much greater consequence than it is to a life insurance company. Investments in income property and real estate mortgages, therefore, must be more restricted.

The investment programs of fire insurance companies must be flexible and responsive to changes in business activity. In the prosperity phase of the business cycle, the market value of the portfolio increases, dividend receipts are more generous, and there are fewer defaults among private and civil debtors. The income from premiums increases markedly, and the outgo for payment of losses tends to decrease. However, in a period like that following World War II, when the cost of labor and materials soared to new heights, fire insurance companies are forced to make unprecedented outlays for restoring damaged property. Naturally, when such situations persist the companies are compelled to raise their rates, but the new rates afford no relief with respect to existing contracts.

In a period of depression, restoration costs are likely to decrease, but premium income likewise declines and fire losses increase, not so much because more people commit arson as because property is allowed to deteriorate and there is a general relaxation in fire prevention.

For a small company, or one whose premium income and consequent potential liability for losses are large relative to its capital funds, the primary consideration in investing is to maintain both liquidity and market value of investments at all times, so that extraordinary losses may be met without undue difficulty, and so that there may be no question of impairment of solvency in poor times. For companies whose capital funds are particularly large relative to the volume of underwriting business, investment operations may be planned mainly from the viewpoint of the greatest long-range return, with the knowledge that an ample margin of solvency is assured in almost any event. Most of the older fire insurance companies possess substantial capital and surplus funds which allow them a considerable freedom of this sort in their investment policies, but experience has demonstrated that they must nevertheless concern themselves with maintaining a reasonable stability in the market value of their investment portfolios.

Factors of no concern in the field of investment company management loom large in the portfolio problems of fire insurance companies. Not only must the company's investment department be governed by conditions in the securities markets, but it must also take into account the trends in the volume and profits of the underwriting department. As we noted above, a decline in profits can be relieved by securing a higher schedule of rates, but there is a considerable lag before the benefits of the higher rates can be realized. Whenever the volume of fire losses changes, it alters the showing made by the underwriting department. If the volume of incoming premiums increases, the investment officers must build up a correspondingly larger reserve. As a matter of sound practice, many companies maintain a reserve in cash and bonds equal to the entire amount of their calculated liabilities.

Comparison of fire insurance company investment portfolios over a long period of years shows a gradual reduction in the proportion of funds invested in mortgages and real estate and a corresponding expansion in the holdings of governmental and corporate securities, with increasing attention to common stocks in the later years. However, such changes as have occurred have developed only slowly. More striking have been the persistent differences in policies between individual companies. These differences have been so marked as to lead to one group of companies being known as "bond companies" and another group as "stock companies."

The "stock companies," of course, do not confine their investments exclusively to common stocks but own bonds to the extent required by law and as much beyond as is thought necessary to maintain a sufficient stability. Likewise, "bond companies" rarely avoid equities entirely, and there are many middle-of-the-road companies not properly classified in either group. Still, there has been a definite cleavage between the two general policies, and it is pertinent to inquire into the relative results achieved. On the basis of available data, the investment accomplishments of the two groups of companies do not offer conclusive evidence either way. Much depends on the period chosen for comparison and on the particular companies selected as exponents of the policies. It is probably fair to say that on the basis of experience either policy might be chosen with reasonable hope of success. The average company should find something of value in both approaches; and they may logically be combined. Where a substantial margin of surplus funds is not available, however, stability in value and ready marketability remain the first considerations. Concentration on fixed-income obligations is then essential.

Table 13 illustrates the marked differences in investment policy between a larger and a smaller company, the former a "stock type" and the latter a "bond type" company, together with their deviations from the general pattern.

Public Regulation. Although at one time largely free from restriction and still not burdensomely regulated, the investment operations of fire and other property insurance companies have been subject to a limited degree of governmental control for many years. State laws have laid down certain requirements regarding minimum capital funds and necessary reserves and the types of investments permissible. These requirements have been made effective through periodic examinations, undertaken for each company by the various states in which it operates as well as by the state under whose laws it is incorporated.

TABLE 13

Variations in Investment Policies of Fire Insurance Companies *

	Fidelity-Phenix Fire Ins Co., N. Y % of assets	Queen Insurance Company, N. Y. % of assets	363 Fire and Marine Companies % of assets
Cash	4.4	5.2	10.58
U. S. Bonds	15.9	67.1	36.33
Foreign Bonds	1.0	1.9	1.53
State, Territory Bonds	1.3		0.56
Municipal Bonds	1.9		2.23
Railroad Bonds	3.5	0.8	1.54
Public Utility Bonds	0.4	0.3	0.79
Industrial, Miscellaneous Bonds	0.7	2.3	0.63
TOTAL BONDS	24.7	72.4	43.61
Railroad Stocks	1.8	0.9	1.92
Public Utility Stocks	1.6	1.4	4.40
Banks, Insurance Company Stocks †	31.4	1.1	12.51
Industrial, Miscellaneous Stocks	30.5	14.9	17.96
TOTAL STOCKS	66.3	18.3	36.79
Real Estate	0.1		1.22
Mortgage Loans			0.44
Agents' Balances	2.7	2.7	5.40
All Other Assets	1.8	1.4	1.96
AMOUNT OF ADMITTED ASSETS	$141,143,999	$37,679,074	$4,348,262,721

* Data from *Spectator Insurance Yearbook (Fire and Marine Volume) for 1948*

† Heavy holdings in this category usually due to ownership of stocks of subsidiary insurance companies.

State laws governing insurance companies vary, and such legislation is amended frequently, but there is a general tendency to follow the lead of New York State, in which a large proportion of American companies is domiciled. Recent trends have been toward stricter requirements for property insurance companies, while at the same time restrictions on the investments permitted life insurance companies have been relaxed somewhat.

Existing regulations usually separate investments permitted fire insurance companies into two or three broad classes. (1) Investments constituting *minimum capital requirements.* They are usually limited to federal, state, and local government bonds and either local mortgages or those insured by the Federal Housing Administration. (2) Investments which serve as a protection to the ***unearned premium and loss reserves.*** In New York, this fund must equal 50 per cent of these reserves. Much greater leeway is permitted than in the first category. However, common stocks are not on the eligible list. It will be recalled that, in actual practice, the better companies maintain in the form of cash and bonds an amount equal to 100 per cent of the calculated liability. (3) In the selection of the ***remaining investments*** a good deal of leeway is permitted so long as the issuer is solvent and regular interest or dividend payments are being made.

A customary provision is that all investments or loans must be authorized or approved by the board of directors or by an investment committee of the board of directors. Ordinarily, also, a limit is placed on the proportion of funds which may be placed in the securities of any one issuer, other than the securities of an affiliated insurance company or those of the United States Government.

SUPPLEMENTARY READINGS

Ackerman, S. B., *Insurance,* Ronald, New York, 1948, Chapters 27 and 28.

Badger, R. E., and H. G. Guthmann, *Investment Principles and Practices,* Prentice-Hall, New York, 1941, pp. 532–549.

Gesell, G. A., and E. J. Howe, *Legal Reserve Life Insurance Companies,* Monograph 28, Temporary National Economic Committee, Government Printing Office, Washington, 1940, pp. 342–378.

Riegel, R., and J. S. Miller, *Insurance Principles and Practices,* Prentice-Hall, New York, 1947, pp. 189–197, 497–511.

PROJECTS

1. Obtain from Best's *Insurance Reports* and the *Insurance Yearbook* (Spectator Company) the latest data on one life company and one property company with respect to their investments. Present these data with critical comments regarding differences in policy.

2. From the same sources prepare a study of important changes in the percentages of each class of investment of American life companies, taken as a whole, over the last 20 years. Try to account for them.

CHAPTER 16 Investment Policies of Investment Companies

Investment Company Defined. In popular parlance the term "investment company" has been used interchangeably with "investment trust." Strictly speaking, the use of the latter term should have been confined to those organizations that have selected the "trust" rather than the more common "corporate" form of organization.

Since the federal Investment Company Act of 1940 speaks exclusively of investment "companies" and the industry's association is called the "National Association of Investment Companies," we shall employ the term "company." However, an exception will be made of the terms "fixed trust," "unit trust," and "semi-fixed trust" because of their universal usage.

An investment company is an organization that invests the funds of its stockholders and bondholders in the securities of other companies with the idea of providing greater diversification and better management than the typical investor can achieve by managing his own funds. It confines its ownership to a minor percentage of the securities of any company and avoids having any part in its management.[1] By this pooling of funds the benefits of skillful investment management can be enjoyed by persons who cannot afford to employ investment counsel.

The British Origin of Investment Companies. Though scattered examples of somewhat comparable companies had existed earlier on the Continent, the real development of the investment company as we know it today began in England and Scotland in the 1860's and 1870's, and it was almost exclusively confined to those countries for a long period thereafter. The sudden popularity and rapid growth of investment companies in Great Britain was due largely to the fact that an increasing amount of capital was available for investment and the yields obtainable on high-grade domestic securities were extremely low. Yields on foreign issues were much better, but there were greater risks involved and the formation of sound judgments respecting a distant risk was too difficult a task for the average individual investor. The investment company, which offered diversification to minimize these risks and provided informed and expert judgment, was a direct answer to the problem.

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[1] The term investment company has sometimes been used in the United States to embrace all companies whose business is to manage a portfolio of securities even if their purpose is the control of the businesses whose securities are held or the undertaking of specialized or trading operations. This discussion will not concern itself with these types of operation.

Senior capital in the shape of debenture bonds and preferred stock could be had at such low rates that the earlier British companies traded heavily on the equity. In good times, this meant that the common stockholders reaped unusually high profits, but in a depression the heavy pyramid of senior capital was a source of serious trouble.

Like those in the United States, the great majority of British investment companies were founded during a late phase of business recovery or of boom. The Baring crisis and subsequent years of depression brought serious losses to investment companies through heavy decline in the value of the high-cost securities they held. Some companies with heavy senior charges to meet found it necessary to reorganize. The plight of these companies was accentuated by a variety of unsound financial policies and by utilization of the enterprise in some cases by insiders for the purpose of making exorbitant personal gains.

After the sobering experience of the Baring crisis, investment company policy in Great Britain followed a much more conservative pattern, with the result that, after passing through certain difficulties at the time of World War I, the companies came to enjoy a creditable reputation. Their shareholders, by and large, could point to a long record of satisfactory dividends and the accumulation of large reserves.

The great depression of the 1930's, with its unprecedented world-wide severity, hit foreign investments particularly hard. Since this was traditionally the primary field of the British companies, they had to face heavy losses. A few of the older and sounder companies came through in relatively good shape, but the many new ones founded in the boom period of 1927–1929, generally with leverage based on 5 per cent debentures and 5 or more per cent preference stock, faced a continuing problem of great difficulty.

As a consequence of the blows suffered from the great depression and the unfortunate reliance on foreign securities, the prestige of the "management-type" companies was impaired, and there resulted a great growth of "fixed" and "unit" trusts which placed little or no emphasis on management and usually limited their selected list of investments to the domestic field. These companies differ widely from the older "management type," and they will be treated separately along with their American contemporaries.

Briefly, the following characteristics of British management investment companies, taken as a whole, differentiate them from the general run of American companies. (1) No single investment amounts to a significant proportion of the company's assets. As a consequence, a large number of securities, sometimes 1,000 or more, may be found in a single portfolio. (2) Only interest and dividends are treated as income, trading profits or capital gains being employed for the purpose of writing down the book value of the remaining investments or of setting up reserves. (3) In investment decisions heavy reliance is placed on the personal judgments of the manager and directors, who usually do not have the assistance of the extensive statistical staffs found in the large American companies but depend to a considerable extent on personal contacts and the advice of brokers and statistical services. Since the examination of each individual security cannot be exhaustive, the operation of the law of averages is relied on to minimize the effect of mistaken judgments. (4) The existence of heavy senior obligations in the capital structure of the average company makes it necessary to distribute its investments among different classes of securities (i.e., bonds and preference stocks as well as common stocks) in order to have a more dependable source of income with which to pay its own interest and preferred dividend commitments.

Those British companies which have followed what one authority in the field calls "the practice of constructive pessimism persisted in over a long series of years" and have built up "adequate reserves in anticipation of lean times"[2] have continued to meet in creditable fashion the serious problems posed by World War II and the post-war period.

History of American Investment Companies. Management of funds held in trust goes back to the year 1818 when the Massachusetts Hospital Life Insurance Company of Boston undertook to manage sums held in trust for its patrons. At about the same time, similar services were inaugurated by the Farmers' Fire Insurance and Loan Company of New York and the Newark Savings Fund Association. In each case the commingling and management of investors' savings was a "side line" to insurance, banking, or promotional operations. Similar funds were created from time to time, but it was not until the 1920's that the investment company movement in the United States really got under way in earnest.

The more important reasons for the long lag between the development of investment companies in Great Britain and their general acceptance in the United States follow. (1) Before World War I, the real estate mortgage and real estate itself were the principal outlets for savings in the United States, although there was a not inconsiderable investment in corporate and municipal bonds. (2) American railroads and other industries, to a lesser degree, had obtained much of their capital from abroad or from "ploughing back" their earnings. (3) As a class, common stocks, the chief outlet for investment company funds, had not achieved respectable investment status. (4) There had not developed a large body of relatively small investors. It remained for World War I, with its widespread distribution of small-denomination Liberty Bonds, to introduce the man on the street to the ownership of securities.

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[2] George Glasgow, *Glasgow's Guide to Investment Trust Companies,* Eyre and Spottiswoode, London, 1935, pp. XXI, XXXIII.

The American investment company, then, is largely a product of a post-war boom decade, that of the 1920's. A favorable combination of circumstances for raising capital for investment coincided with a spreading knowledge of the record of success established by the British companies.[3] Development became active in 1924 and culminated in a tremendous wave of new investment trust flotations at the height of the speculative orgy in 1927–1929. Under the circumstances, speculative development was inevitable, and it is not surprising that the investment companies suffered severely in subsequent years from the policies adopted in this ill-starred formative period.

In many ways, the promotional period of American investment company development in the 1920's resembled that of the British in the 1880's. Similar errors of judgment were made, and similar abuses and fraudulent practices crept in, the principal differences being the grander scale on which the American development occurred and the more serious extent of the general speculative mania and the subsequent collapse. Unlike the British companies after the Baring crisis, however, the American companies were slow to distil from their disastrous experience any generally acceptable philosophy of management. This was a serious matter, for, second only to the more flagrant promotional abuses and to the basic error of investing funds originally during a period of gross overvaluation of the media selected, the general management policies followed by the companies contributed greatly to their misfortunes.

Some of the first American companies made an effort to follow established British lines, but at an early stage advocates of other policies appeared. The investment company label eventually came to be applied to almost any type of company engaged in holding or dealing in securities, regardless of its objectives or methods.

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[3] For a more detailed treatment of the origin and development of investment companies and similar enterprises, as well as of later experience, see the report of the Securities and Exchange Commission, *Investment Trusts and Investment Companies*, Washington, 1939–1940. This report will be referred to in subsequent pages as the "SEC study."

Types of Investment Companies. The SEC study devised a simple workable classification of investment companies:

1. Management companies.
2. Fixed or semi-fixed trusts.
3. Instalment investment plan companies.
4. Face-amount instalment certificate plan companies.
5. Commingled trust funds.

We shall confine our discussion to the first two groups, with the major emphasis on the management-type company.

Fixed trusts provide diversification alone, through ownership of a fixed list of securities with no provision for management. In between these classes are found the semi-fixed trusts, in which the managers are granted a limited authority to make eliminations or substitutions, and the restricted management trusts, in which selections for investment are confined to a specified list of eligible securities.

The management-type companies themselves fall into several groups. In form, the main distinction is between "closed-end" companies, which issue fixed amounts of capital and commonly employ debentures[4] and preferred stock to provide leverage for the common shareholders, and "open-end" companies, the capital of which is usually of a single class and may be increased continually through offerings at the currently existing asset value per share plus a selling commission. The latter companies also follow the practice of buying back capital shares at the request of shareholders on the basis of current asset value, sometimes less a small discount. The vast majority of the companies formed in the 1920's were of the closed-end type, and, despite heavy losses after 1929, numerous consolidations, heavy retirement of capital, and a cessation of new flotations, these companies remain an important group. In more recent years, however, the open-end companies, known popularly as "mutual" companies, have increased greatly in number and in size.

It is in management policies that the American companies have departed most completely from British tradition. A number of the early companies were patterned after the British, as we have said, but relatively few companies made any pretense of adopting the whole of British practices, and practically none was able to hold itself to such a program when faced with the great boom in the American stock markets.

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[4] Senior capital sometimes consists of unsecured bank loans. Usually such loans contain a serial payment provision as well as a requirement that net assets be maintained at or above a specified level relative to the size of the loan. Some companies which have employed serial bank loans are replacing them with debentures bearing a low rate of interest, but the total volume of investment company debentures is still small. There is a somewhat larger volume of preferred stocks of closed-end companies outstanding, in spite of their high dividend rates.

As the boom progressed, heavy emphasis on common stocks became increasingly characteristic of the American companies. Despite the necessity for protecting large amounts of senior capital and earning charges upon it of 5 and 6 per cent, many companies placed virtually their entire funds in low-yielding equities, relying rashly on trading profits and anticipated long-term capital gains for the payment of charges as well as of dividends to shareholders. Only a few forswore the distribution of capital gains, and equally few made any serious attempt to provide adequate reserves against possible depreciation. Treatment of capital gains as income was, of course, encouraged by American tax laws, which considered such gains taxable income.

Another American phenomenon was the building up or employment by many investment companies of expertly staffed research organizations, often of considerable size, to analyze and select securities for investment and to study economic conditions in order to determine appropriate times for purchases and sales. Such organizations, of course, were expensive to maintain. However, for the necessarily cursory judgment of a few men responsible for selection and supervision of 500 or more diverse securities, which often obtained in Great Britain, there was thus substituted the collected "scientific" judgment of a staff of economists, market analysts, engineers, statisticians, and other specialists. In addition, it became the American practice to confine holdings to a more modest total number of securities, so that each issue might receive more careful individual attention. It was argued that "superior management" was a desirable substitute for diversification.

The net consequence of the policies followed by American investment companies when they were put to the test of severely unfavorable conditions after 1929, was in most cases disastrous, and in some irreparably so. A dominant influence on the investment operations of many companies since has been the desire for capital gains with which to recoup losses suffered in 1929–1932. Although there naturally have been great differences between companies, and shrewd managers, as in Great Britain, have maintained definitely creditable records of investment accomplishment since 1929, there is indeed little evidence that the average company has demonstrated the superior results that might logically be expected from professional management, despite the heavy managerial expense which has typically been incurred. Operating expenses of the American companies have on the whole been far greater than those of the British, frequently exceeding 1 per cent per annum of the total fund managed, or a relatively large share of gross income.

The position of those managers whose operations are burdened with charges on senior capital at rates of 5 and 6 per cent has been particularly difficult in periods of low yields on securities, and many companies have seen capital dissipated gradually through its application to the payment of these charges. Though by and large the results achieved by investment companies are still disappointing, there has been a general improvement in recent years. In fact, in many cases, management results have been quite creditable.[5]

Fixed Trusts. The heavy losses following 1929 were even more of a blow to management investment companies because of the great prestige they had enjoyed previously. Popular faith in the infallibility of leading bankers and industrialists, who possessed "inside" knowledge of corporate affairs, had caused the securities of investment companies with which they were associated to sell at large premiums over asset value and far out of line with their earning power. The collapse of the boom, however, and the losses suffered, especially in situations with high leverage, brought about a disillusionment regarding managerial ability and caused these same securities to sink in price far below their deflated asset values.

One consequence of this revulsion against management was rapid expansion in purchase by investors of shares in the fixed trusts, which offered diversification stripped of management. The fixed type companies had been in existence for some years, yet their growth until late 1929 had been relatively slow. Specialized "bankers' shares" companies offering certificates of participation in blocks of stocks within a given industry were widely distributed in the early years, but the active boom which developed in fixed trusts in 1930 and 1931 was largely in shares offering participation in diversified lists of securities.

Sponsors attempted to select a sound list of 20 or 30 securities, which were purchased and placed on deposit with a custodian or trustee as money from the sale of participations was received. It was generally provided that the list was not to be disturbed, except to eliminate a security which had passed its dividend. Experience later proved this provision particularly costly, since no action could be taken until a dividend was actually passed, thereby forcing the sale to be made at what might be the worst possible time. To meet the objections raised by the poor marketability of most management-type shares, the fixed trusts also provided that shareholders might surrender their shares at any time and obtain their proportionate "liquidating" or asset value or convert them into a *pro rata* share of the underlying securities. The fixed trust was thus essentially a merchandising package which offered little more than a degree of diversification. Costs of distribution were high, investors' experiences were unfavorable, and the popularity of this type of investment waned in 1931, with repurchases of shares by the companies shortly becoming heavy.

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[5] See Arthur Wiesenberger, *Investment Companies*, 1948 edition, pp. 58, 95, 213.

As an indication of the view of a former leader in the distribution of fixed trusts, the following testimony of Cedric H. Smith before the Securities and Exchange Commission is of interest. Mr. Smith declared in 1937, "There is no excuse for a fixed trust. It is an unsatisfactory medium of investment. Conceding honesty in management and proper trusteeship, there is still no excuse for them." An associate concurred, stating, "I wouldn't offer them again today." [6]

Diminishing interest by investors in investment companies which did not offer managerial supervision beyond the original task of portfolio selection led to the establishment of semi-fixed trusts, which permitted substitution of securities and other changes within certain prescribed limits. These have never become popular in the United States. The semi-fixed trusts should not be confused with the general management funds which operate with approved lists. These lists are so broad in scope that they do not restrict freedom of choice to any appreciable degree.

In Great Britain, there was a truly remarkable growth in fixed trusts in the decade of the 1930's. Active organization of these companies did not begin until 1933, but numbers increased rapidly thereafter. Disappointment with the record of management investment companies was less of a motivating influence than in the United States, though it was a factor. More important was a desire to participate in the boom which developed in Great Britain after 1933, but in which many of the older investment companies did not share heavily because of their large investments in foreign countries. There was, especially, a growing desire for participation in common stocks, which few of the older companies had stressed. Investors were also attracted by the provisions which made fixed trust shares readily convertible into cash.

The British fixed trusts profited from American experience and generally permitted certain discretion with regard to eliminations. As development progressed, moreover, increasing flexibility was introduced, at first involving only permission to substitute securities from a small approved list but later permitting selection from increasingly broad panels. The term "unit trust" came to be descriptive of both fixed trusts proper and managed companies closely akin to American open-end companies.

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[6] *New York Times,* January 27, 1937.

An investigation of British fixed and flexible companies was carried on by the Board of Trade in 1936, supplementing an earlier study by the Stock Exchange. As a consequence of objections made to existing practices, certain changes were undertaken by leading sponsors of such companies.[7]

Recognizing the fallacy in the belief that any list of securities may safely be put away and forgotten, we can gain little from discussing true fixed trusts in terms of investment policy, and semi-fixed or flexible trusts may be discussed only individually according to the latitude of action permitted them. It is of general interest, however, to make the point that such investment agencies, to the important extent that merchandising considerations cause them to confine holdings to a relatively small list of leading, active, common stocks, may conceivably be a significant influence tending to increase the overvaluation of such stocks which normally exists.

Open-End Funds. A major type of managed investment company which did not make important progress until the 1930's is the so-called open-end fund. This type, also known as the "Massachusetts" or "Boston" type, combines continuous managerial supervision with provision for redemption of shares at any time, on prescribed notice, at or near the value of their proportionate interest in the fund's assets. A number of companies of this general type were formed, principally in Boston, in the period 1924–1926, but they grew slowly and were a minor group in 1929. During the subsequent depression years, however, particularly after the decline of the fixed trust, the shifting tastes of investors plus intensified distributing efforts caused growth to become rapid, many new companies were formed, and a large total of capital was raised. The distinctive features they offered, including a single-class capital structure, the redemption privilege, and investment policies stressing a diversified group of leading common stocks, gave them appeal at this time. This appeal was increased in some instances by a trustee form of management and by investment restrictions which often included the employment of an "approved list" of securities to which investments were confined. Managerial expenses were limited to some extent by provision in most cases for a fixed managerial fee of one-half of 1 per cent per annum of the market value of the assets managed, to be paid a separate management organization which agreed to supply all investment advice. There were many operating expenses, however, that this charge did not cover, and total expenses were generally nearer 1 per cent.[8]

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[7] See T. Balogh and E. Doblin, *Investment Trusts in Great Britain*, Securities and Exchange Commission, Washington, 1939, Chapter XI; also *Fixed Trusts: Report of the Departmental Committee Appointed by the Board of Trade, 1936*, London, 1936.

The position of these companies has been greatly strengthened by favorable recognition from Congress in recent revenue acts. By complying with certain requirements set forth in the Internal Revenue Code and notifying the Commissioner of Internal Revenue to that effect, they may become what is known as "regulated investment companies." If then they pass on to their shareholders all their net taxable income, including capital gains, they are exempted from paying federal income tax. The decision to become a "regulated" company is irrevocable.

The stockholder, however, must report as income the whole of the amount the company designates as "income from interest and dividends," and one-half of the "net capital gains" distributed to him. If the investment company paid a tax on the dividends received from a corporation and passed on to shareholders, this would constitute triple taxation, for the corporation must pay a tax on net income out of which the dividends were paid and the owner of the investment company's shares must pay a tax on these dividends when they are passed on to him. This would serve to place a penalty on investing through an investment company instead of buying various corporate shares directly.

One important adverse effect of the preferential tax status provided, since it required distribution of virtually all income and classed capital gains as income, was to compel the distribution by such companies of all capital gains that could not be offset with losses. Not only has this provision contributed to erratic dividend records, but it has encouraged the companies in maintaining higher dividends than they can expect to earn purely from investment income.

The other requirements for open-end companies set forth in the Revenue Act of 1936 were sound in that they placed official approval on practices which were becoming widely accepted as desirable. Subsequently, under continual pressure from the Securities and Exchange Commission and the various state security commissioners whose approval is requisite for the

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[8] The following table, based on data given in the Wiesenberger volumes, shows the expenses of investment companies in per cent of average net assets:

	Average, %	Range, %
OPEN-END COMPANIES		
1946	0.82	0.31-1.73
1945	0.85	0.31-2.53
1944	0.91	0.34-2.30
CLOSED-END COMPANIES		
1946	0.58 *	
1945	0.55	

* 15.3 per cent of gross income.

sale of investment company shares, numerous additional restrictions on investment policies and safeguards to protect investors were adopted by these companies. In 1939, the National Association of Security Commissioners approved a uniform regulation setting forth requirements which investment companies must meet in order to receive selling permits within states adopting it. In 1940, comprehensive regulation of all types of investment companies was provided for by Congress in the Investment Company Act, which we shall describe presently.

The principal special factors influencing the investment policies of open-end funds are two, and they are related. In the first place, the company must give weight to its obligation to redeem shares and must in consequence maintain a high degree of marketability in its portfolio. In the second place, it must give weight to the "sales appeal" of its portfolio and of its dividend policies, so that redemptions may be kept at a minimum and so that new sales will continue to provide capital to replace that withdrawn or to expand the total size of the fund.

The first requirement, marketability, met generally by concentration on active listed common stocks, does not offer much of a problem except to the larger companies whose individual commitments become great enough to make their liquidation difficult in unfavorable periods.

The second factor, "window dressing" of portfolios and declaration of undesirably large dividends for the purpose of adding to sales appeal, is a genuinely important influence. Some flow of sales, whether based on successful merchandising methods or on an unusual degree of prestige enjoyed by the management, is a continuing necessity if gradual shrinkage is not to occur in an open-end fund. Two of the largest funds of this kind were revealed in the SEC study (Part Three, Chapter III) to have repurchased, between September 30, 1929, and December 31, 1932, shares equal to 80 per cent and 88 per cent of their respective totals outstanding on September 30, 1929. The companies found a continuous selling campaign necessary for their survival.

Under these circumstances, and with portfolios and portfolio changes given frequent publicity, thought of sales and repurchases of the trust's own stock unavoidably colors managerial actions. It often tends, for example, to freeze holdings and prevent withdrawal from commitments in weakened situations because of the adverse effect the loss involved would have on earnings available for dividends. It makes operations particularly difficult for those managers who attempt to shift their invested position materially as stock prices rise or fall. A fund with large holdings of cash and government bonds, for example, has little sales appeal for the typical investor, at least in periods when such a position might be wise. Some funds avoid this problem by frankly remaining in a fully invested position in good times and bad, offering the investor a diversified holding of common stocks but abdicating any responsibility for "timing." A similar problem occurs in the selection of individual securities, where managers avoid criticism through emulation of others and purchase of issues with an eye to their popularity. The statement of Ross Beason, a major distributor of mutual funds, quoted in the SEC study (Part Three, Chapter III, page 27), is deserving of reproduction:

> Unfortunately during the selling period for an open-end fund where the liquidation clause is present it is necessary from a practical standpoint, or rather from a selling standpoint, to have the portfolio composed of companies more or less well known by name to the average investor, and consequently made up of a list found in similar competing funds. After the selling period is over, it is necessary to continue along much the same lines to avoid criticism and stop trade-out arguments of competitors.
>
> Take the case of an investment fund with, say, $100,000,000 of assets. If we should run into another period such as we did in late 1929 and the management should appraise the future and get into a cash position, they would promptly be penalized for their efforts because the assets of this particular fund being in cash would show no shrinkage when the market fell and the shares of the fund would remain at a high level, whereas other securities would show a drastic decline. It is fundamentally true that people sell good securities to protect poor securities, and the result would be that the fund would be liquidated and a penalty put upon the foresight and acumen of the management for having appraised market action. Indeed, with a fund so large it would take several months to get into a cash position, and if the market were showing a steady rise up to the time of the break, as it did substantially in 1929, the competitors would call attention to the fact that shares of this particular fund were not increasing in value as fast as the shares of a less well managed fund which was not getting into a cash position in anticipation of the market break. This again would cause liquidations. In event sincere management believed that a break was imminent and got into a cash position and the break did not materialize, the competitors would use this as an argument to get out of that particular fund because they had not called the turn.
>
> Any way you look at it the management of funds with liquidating clauses are more or less forced to follow one another like sheep instead of giving the best operation which their studies or efforts may suggest.

Though important differences appear to exist in the investment problems facing open-end and closed-end companies, we find that their average records of investment accomplishment do not diverge materially. (See SEC study, Part Two, Volume IV.) A much greater difference exists between accomplishments of the various individual managements. Within both groups of companies, extreme variations in managerial ability have been demonstrated.

The Investment Company Act of 1940. Even before 1929, there was agitation for regulation of investment companies, and demands for attention by governmental authorities multiplied after that date. The SEC study to which we have been referring, an outgrowth of this agitation, gathered together a mass of evidence relative to the experience of investors in such companies and the more serious causes of loss. The evidence obtained was made the basis for recommendation by the Securities and Exchange Commission of drastic regulatory legislation, which after considerable modification through conferences with representatives of the investment companies became the Investment Company Act of 1940. The act is lengthy, but its more significant provisions may be summarized as follows:

(1) Investment companies are required to register with the Securities and Exchange Commission, supplying extensive information similar to that previously required of companies proposing to offer new securities. The companies are classified according to their capital structures and the diversification of their portfolios, and they are required to file a recital of their investment policies. A company's classification and general investment policies may not subsequently be changed without a majority vote of the stockholders.

(2) Stringent regulations are provided governing relationships with affiliated companies, underwriters, investment advisers, banks, brokerage houses, and investment bankers, with the aim of minimizing possible conflicts of interest. A minimum of 40 per cent of the board of directors must ordinarily be free of any other connection with the company or affiliated interests such as investment advisers. The details of management or underwriting contracts must be provided, and long-term contracts of this nature are not permitted.

(3) Restrictions are placed on borrowing and on the issuance of new senior securities, and reorganization and recapitalization plans are, in effect, made subject to approval by the Securities and Exchange Commission. New borrowings, other than purely temporary loans of small size, must be covered 300 per cent by assets, and new senior stock must have an asset coverage of at least 200 per cent. In the interest of simplification, it is provided that such companies may in the future issue only one class of indebtedness and one class of senior stock, and the use of warrants is narrowly restricted.

(4) Extensive provisions are included relative to the obtaining of capital from the public and the repurchase of outstanding securities. Particular emphasis is placed on the prevention of "dilution" of the stockholders' equity in the case of open-end companies through the sale of capital stock at prices below actual asset value.

(5) Finally, the commission is given the power to prescribe uniform methods of accounting and the nature and scope as well as the frequency of reports to stockholders. It is required that statements be independently audited.

(6) The Securities and Exchange Commission is given authority to prescribe regulations governing the circumstances under which securities may be held in the custody of an investment company. The regulations now provide that the securities must be held by a bank or trust company, but it is also possible for them to be placed in the custody of a firm that is a member of a national securities exchange.

In addition to the supervision provided in this act, the Securities and Exchange Commission and the state authorities continue, of course, to pass on the operations of companies engaged in selling shares, and these necessarily include the open-end companies.

These various regulations, however, are aimed particularly at abuses in form and mechanical operation, and at improper sponsor relationships, unethical managerial practices, and inadequate publicity. They do not, in general, have a serious bearing on investment policy, except in that they enforce a degree of diversification among investments and influence dividend policies, thereby affecting the ability to set up reserves.

There is no guaranty, of course, that in their enforcement the regulations may not in practice be used to restrict or prescribe investment policies in more detail, as might easily be done. However, as aptly expressed by Edward L. Katzenbach, Attorney-General of New Jersey, after an inquiry into investment companies in 1928, "It is impossible to legislate common sense into fools or honesty into thieves, and those who think that a statute can be enacted which will relieve investors from having to think intelligently and investigate thoroughly before parting with their money, are doomed to disappointment." [9]

Distribution of Investments. A detailed survey of the portfolio investments of investment companies for the years 1927–1936 is a part of the SEC study (Part Two, Volume VI, Chapter VIII). The statistical summaries there presented afford a broad picture of the distribution of investments among general classes of securities, as well as the extent of diversification practiced among industries and among individual securities. Interpretation of these figures, however, should be qualified by recognition of the diverse natures of the companies included, of changes due to the addition of new companies, and of the fact that a few large companies tend to receive a disproportionate weight in some types of comparison. We shall refer here to the summaries for "management investment companies proper," excluding companies now found in the Atlas Corporation and the Equity Corporation groups, which held an important proportion of total assets in the earlier years, but which have followed distinctly different policies in some respects and have since shrunk greatly in relative importance.

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[9] *Commercial and Financial Chronicle,* February 11, 1928, p. 814.

The principal points brought out in the analysis with respect to the main body of management investment companies were:

(1) Concentration of investments in common stocks was heavy during the entire period. Common stocks made up 66 per cent of the total market value of investments at the end of 1927, 84 per cent in 1929, 75 per cent in 1932, and 87 per cent in 1936.[10] Open-end companies held a larger proportion of common stocks than did closed-end companies, and of the latter those with leverage had the smaller proportion.

Holdings of preferred stocks during this period varied from a maximum of 14 per cent in 1927 to a minimum of 6 per cent in 1933, standing at 8 per cent in 1936. Holdings of bonds varied from 19 per cent in 1927 to 5 per cent in 1936.

(2) Diversification, measured by number of securities owned, has not, generally speaking, been extensive. The average number of securities owned fell from 80 in 1927 to 62 in 1932, and stood at 71 in 1936. This is in strong contrast to the average of over 500 issues in the portfolios of the management-type British investment companies. Approximately 20 per cent of the American companies at the end of 1936 held less than 30 issues, whereas only 22 per cent owned more than 100 issues. Only 4 of the 146 companies in this group owned more than 200 issues. A considerable body of opinion exists among American managers that there is danger in diversification carried beyond a certain point. This view was expressed before the Securities and Exchange Commission in 1937 by George E. Roosevelt, of an investment banking firm associated with investment companies, who said, "Funds should be diversified among industries and among different companies in each industry, but there is such a thing as over-diversification. A research department can investigate thoroughly and watch carefully a portfolio of only about forty stocks."[11]

Concentration of investments in a limited group of popular common stocks has been a significant and growing phenomenon. Percentages calculated for these companies showed the proportion of total market value of their securities represented by the 50 individual issues most popular with the group at each year-end. This proportion grew from 28 per cent of total market value in 1927 to 31 per cent in 1929, 36 per cent in 1932, and 42 per cent in 1936.

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[10] The Atlas and Equity groups differed materially in this respect in the earlier years, reporting 23 per cent in common stocks and 70 per cent in bonds at the end of 1927, but by 1929 their holdings were 77 per cent common stocks, the same figure which was reported at the end of 1936.

[11] *New York Times*, February 1, 1937.

(3) Diversification in terms of a lessened concentration of holdings in single issues or single industries increased during the period. Ownership of diversified industrial securities was gradually substituted for excessive concentration in the electric light and power industry, in particular. At the same time, the early attempt of many companies to diversify risks through ownership of substantial foreign investments has been almost completely abandoned as a consequence of heavy losses and unfavorable international political and economic trends.

The volume of trading operations of 107 of the management investment companies in the period 1933–1935 was also analyzed, and "turnover ratios" were revealed which ranged from nine times a year to once in eight years. The average company required two or more years to "turn" its portfolio or, in other words, to complete a dollar total of purchases and sales equivalent to twice the market value of the portfolio. With respect to any correlation of trading activity or lack of activity with performance, the SEC study found that for the three-year period there was no significant relationship among the closed-end companies, but that trading activity in the open-end companies had been associated with relatively poor performance.

More recently, there has been a trend away from the purely common stock fund to the "balanced fund" in which a backlog of bonds and preferred stocks is carried in order to bolster an otherwise declining income in adverse times. There has also been a pronounced growth in the so called "specialized fund" field. The assets of funds of this type now account for about 30 per cent of all open-end investment company assets

One type of specialized fund is illustrated by the Keystone Custodian Funds, which offer the investor his choice of four bond funds, two preferred stock funds, and four common stock funds. The several portfolios within one of the three groups differ with respect to the relative emphasis placed on safety of principal and dependability of income as opposed to chance of appreciation.

A second specialty type is found in organizations like Group Securities and New York Stocks which offer a variety of funds each of which confines its portfolio to one given field, such as automobile shares or chemical shares.

Table 14 shows the size of the investment company industry in the United States as of December 31, 1947.

TABLE 14

SIZE OF INVESTMENT COMPANY ASSETS *

	Net Assets (in millions)	Shareholders †
OPEN-END COMPANIES		
35 Common Stock Funds	$ 653	
23 Balanced Funds	329	
22 Bond and Specialty Funds	427	
Total, 80 Companies	$1,409	672,500
CLOSED-END COMPANIES		
Total, 37 Companies	771	317,700
TOTAL, 117 Companies	$2,180	990,200

* Source. Arthur Wiesenberger and Company, *Annual Compendium of Information on Investment Companies*, New York, 1948.

† Totals for individual companies, involving overlapping ownership

General Management Policies. Enough has been written here to indicate that, though certain trends in management exist among investment companies, such as the trend toward concentration on a relatively limited list of active common stocks, no generally accepted pattern of management practice has been developed. A basic factor tending to produce divergent practices in the past has been the varying nature of the interests the managers may have had in the company. One management group, for example, may have owned options or warrants on the common stock of a company and in consequence may have employed highly speculative policies aimed solely at capital gain in the hope of increasing the stock's asset value materially and making a "killing" for itself. Another group may have obtained its main profit through the commissions accruing to an associated brokerage or investment banking firm as a consequence of active trading. One noteworthy effect of the Investment Company Act has been to eliminate many such means of profiting at the expense of the stockholders.

An important group of managers among the open-end companies is hat interested in policies which will add to the salability of the company's shares so that they may obtain a distributing profit or an increased managerial fee as the company grows. Among the closed-end companies, a highly important group is that engaged in attempts to recoup, rapidly or slowly as the case may be, losses suffered in the past which may have in part or wholly wiped out the value of a substantial equity investment. Other groups may be handicapped by a high expense ratio or excessive senior charges to the point where they can show income on the equity shares only through trading profits or through the acceptance of abnormal risks.

Among the considerable group of professional managers who are watching primarily the interests of the shareholders and who are not unduly concerned with "window dressing" for sales purposes or handicapped by errors of capitalization made in the past, there are as many divergent opinions on what policies are in the shareholders' interest as there are theories of investment. Only a small minority of managers, however, has resisted the general trend toward heavy concentration on common stocks as the appropriate investment vehicle. Attention to common stocks, and particularly to the opportunities they afford for capital gain, has been so general and the average investment accomplishment over a period so indifferent that one wonders if more attention to the realities of income and the powers of compound interest would not be desirable.

Some investment companies, of course, in theory remain fully invested in common stocks and concentrate their attention on selection rather than on timing of purchases and sales. In this they perform a useful function, even though they leave the investor to face alone the rather terrifying swings that continue to recur in common stock prices. Other companies have attempted to solve this problem for the investor through a policy of building up large cash balances when the outlook for stocks is believed to be unfavorable, but they have found that "scientific" methods of predicting cyclical swings in the stock market are productive of surprisingly inconsistent results and that stock speculation requires qualities not to be found in the average investment committee or board of directors.

Generally speaking, it would appear that investment company managers would be wise to lessen emphasis on the difficult speculative art of extracting trading profits from cyclical movements in common stocks and to concentrate instead on investing for income and long-range capital appreciation, a type of operation for which their expert research and analytical staffs and superior facilities for obtaining information are vastly better fitted. They are in a particularly advantageous position to undertake the discovery of long-run investment values unknown or unappreciated by the man in the street, and there is no logical reason why they should confine their search to the same limited group of leading common stocks with which the tyro is familiar. It is only common sense that the best investment opportunities will seldom be found in either the most popular and active or the highest grade issues, no matter how intrinsically sound these issues may be.

Such an approach does not mean that investment managers need to be blind to the cyclical risks existing in a prosperous period with a relatively high general level of security prices or to the opportunities present in a depressed period when security prices have suffered deflation. It does mean that cyclical considerations should ordinarily be secondary to the central problem of building up a satisfactory and reasonably steady income return.

"It is not the business of an investment trust company to show or attempt to make spectacular profits, but by wise, far-sighted and careful management to secure the highest return possible coupled with reasonable safety of capital." [12]

The Investor and the Investment Company. Investment companies are of interest to the investor not merely indirectly for the investment truths and pitfalls brought out by study of their experience, but also directly as a possible medium for the placement of funds. In fact, we have indicated in our discussion of the investment problems of the individual the function they are logically designed to serve for persons who desire to increase their investment return through the assumption of extra risk, particularly the risks associated with equities, but whose funds are sufficiently limited individually to preclude their obtaining otherwise adequate diversification or professional supervision.

A generally unsatisfactory performance on the part of American investment companies in the period preceding World War II should not preclude the inclusion of the shares of carefully selected companies in a present-day investment program. While scrutinizing critically the performances of individual companies, the investor should recognize the definitely useful function of those companies meeting sound standards of operation, such as those we have outlined in the pages preceding. Unfavorable experience with some investment companies need not brand all of them. As we have already indicated, there is evidence that increasing numbers of companies are placing their operations on a sounder and more realistic basis.[13]

The data in Tables 15 and 16, based on tables in Wiesenberger, compare the annual performance of 40 open-end companies and 34 closed-end companies (24 leverage and 10 nonleverage) during the decade 1937–1946.

The sound procedure for the prospective purchaser of investment company shares would seem to be: (1) to determine what investment objectives he means to attain; (2) to single out the types of portfolio (common stock fund or balanced fund) best calculated to achieve these objectives; (3) to acquaint himself with the relative performances of the manage-

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[12] G. Baillie-Hamilton in *The Financial Times*, London, June 14, 1928.

[13] In addition to the reports of the various investment companies the following are useful in checking their performances: (1) Arthur Wiesenberger's yearly manuals; (2) the quarterly data published by the SEC; (3) the data furnished to its members by the National Association of Investment Companies. Some of the latter material is made more widely available in the Wiesenberger manuals.

TABLE 15

Annual Performance of 40 Open-End Companies, 1937–1946

(28 "common stock" funds, 12 "balanced" funds)

	Standard & Poor's 90-Stock Average	Average of Investment Companies	Number of Companies			
	% gain, adjusted for dividends		Better than stock average	Worse than stock average	Equal to stock average	Not in existence
1937	−35	−35	13	12	5	10
1938	31	22	0	31	2	7
1939	− 2	− 3	13	18	5	4
1940	−10	− 7	24	7	6	3
1941	−12	− 8	36	2	2	0
1942	20	15	6	34	0	0
1943	25	29	25	10	5	0
1944	19	22	30	6	4	0
1945	35	35	19	19	2	0
1946	− 8	− 5	26	10	4	0
1937–1946	46	54	20*	10	0	10

TABLE 16

Annual Performance of 34 Closed-End Companies, 1937–1946

(24 leverage, 10 nonleverage)

	Standard & Poor's 90-Stock Average	Average of Investment Companies		Number of Companies			
		Leverage	Nonleverage	Better than stock average	Worse than stock average	Equal to stock average	Not in existence
	% gain, adjusted for dividends						
1937	−35	−35	−28	19	13	1	1
1938	31	20	16	4	29	1	0
1939	− 2	− 3	3	15	13	6	0
1940	−10	− 8	− 7	20	11	3	0
1941	−12	− 5	− 5	30	3	1	0
1942	20	14	11	4	29	1	0
1943	25	36	28	26	8	0	0
1944	19	22	18	16	14	4	0
1945	35	38	36	21	12	1	0
1946	− 8	− 2	− 1	27	6	1	0
1937–1946	46	68	70	29	3	1	1

ments of companies under consideration. This would include: (*a*) the appreciation or depreciation in the value of the assets over a number of years, (*b*) the percentage which annual expense bears to the value of the assets and to the annual income, (*c*) the quality of the portfolio and the diversification of risk represented, (*d*) charges, if any, made for selling and redeeming shares, and (*e*) the dividend record.

SUPPLEMENTARY READINGS

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Stevenson, A. B., *Investment Company Shares,* Fiduciary Publishers, New York, 1947, Part I.

Wiesenberger, Arthur, *Investment Companies,* published annually by Arthur Wiesenberger and Company, New York, Parts I to III.

PROJECTS

1. Trace over the last ten years the quarter-to-quarter shifts in the investment portfolio of one of the well-known investment companies. Try to interpret any definite trends.

2. Compare the general performance of two comparable investment companies for the latest year for which data are available.

PART 4

Investment Analysis

CHAPTER 17 General Considerations in Analysis

Analysis the Basic Guide in Execution of Investment Policies. After we have determined on a general investment program, we are faced with the practical task of translating it into specific security holdings. From survey of the forest, we turn to examination of the trees. What particular shares or obligations should be purchased? If securities are already owned, which of them should be retained and which should be sold?

The investor's basic guide in selecting securities appropriate to a given general program is investment analysis, by which is meant the descriptive and critical analysis of individual securities. Such analysis attempts to set forth the risks incurred and the return to be expected in each instance, and develops standards for comparison with other investment opportunities, thus providing the investor with a basis for intelligent choice.

Consideration of this aspect of the investor's problem has been deferred until now because selection of specific securities is necessarily subordinate to prior judgment on sound general policy and a suitable individual program. Yet we do not wish by this procedure to minimize the importance of analysis or the difficulties involved. The practical problems arising in the process of selecting individual issues have always been stumbling blocks diverting investment to channels not intended. It is at the point of execution that an investment program is subject to the maximum pressure of greed, impatience, expediency, enthusiasm, fear, and similar influences that tend to warp sound judgment.

Viewed broadly, the functions of investment analysis are two: first, that of *classification* and, second, that of *valuation*. Classification, as the name implies, is a descriptive function involving determination of the true nature of a security (in contrast, perhaps, to that suggested by its nominal classification), which in turn requires investigation and weighing of the particular risks incurred and a judgment of the suitability of the security for the purpose at hand. Valuation is a more positive step, going further than classification and trying to arrive at a judgment of value, of the desirability of the security *at a specific price.* It undertakes to determine what price is reasonable for a given security, especially in comparison with other opportunities.

Nature of Analysis Shaped by Objective in Mind. The technique employed and the thoroughness of the analysis undertaken to determine the attraction possessed by a given security naturally will vary in accordance with the general objective in mind. Numerous points of view are possible in the treatment of identical data. Similarly, data valuable with one purpose in mind may be of little practical importance for other purposes. Analysis must separate significant from extraneous factors and must search for and stress factors pertinent to the investor's objective.

If safety of capital is the dominant consideration of the investor, factors of safety must be stressed. If, on the other hand, common stocks are being selected for long-range capital gain, a radically different set of factors will probably be given the greatest consideration. Likewise, if only a few securities are to be owned, a far more intensive study of each will be needed than when a hundred issues are being selected and individual errors thus shrink in relative importance.

A common source of loss to investors is reliance on analyses prepared painstakingly and honestly enough but with purposes in mind not compatible with those of the individuals who use them. For example, the brief popular analyses frequently prepared and circulated by security dealers or advisory services with the object of pointing out the attractiveness of various issues for speculation on short-term appreciation in price often tend seriously to mislead inexperienced investors. Such an analysis may be entirely correct, and the temporarily favorable combination of circumstances noted may be succeeded promptly by a material rise in price, yet the consequences of long-run retention of the issue—never contemplated by the original analyst—may be disastrous. It should be apparent that no issue can be equally suitable and attractive for all purposes, and it is imperative that it be analyzed from a point of view and with a technique appropriate to the purposes of the investor concerned.

Regarding thoroughness of analysis, there is in fact almost no limit to the elaborate detail which may be studied. The analysis of an issue may fill half a page, or a book. Extremely complicated and comprehensive methods of analysis have in many instances been devised, and large research staffs have been employed to put them into effect, even if not always with conspicuous success. Obviously, there are advantages to be gained from careful and thorough study of all possible pertinent factors, but experience suggests that there is also in practice a point of diminishing returns beyond which added detail may serve only to confuse judgment.

Danger of the analyst becoming lost in excessive detail is real, particularly when he is dealing with certain classes of securities, such as those of the railroads, relative to which an especially vast mass of detailed material is readily available. Undue devotion to detail makes difficult the maintenance of sound perspective in arriving at a judgment on a security. A related problem is that the time and expense required to assemble really complete data on a given issue may be all out of proportion to the usefulness of the knowledge obtained.

As a matter of fact, there is little uniformity in the approach of different analysts, even when objectives are the same. Some analysts will study minutely the dry skeleton of facts and figures relative to a security and will give little weight to any element not actually reflected in balance sheet and income account. Others will assign great importance to the less tangible factors of management, banking sponsorship, goodwill, and potentialities for growth, and to "inside" information gleaned from personal contact with the company itself, its competitors, or political sources. Some will base their decisions exclusively on the actualities of the past, and others will look mainly to the promise of the future. Much of the actual choice between these approaches must be based on the particular type of industry being studied, or on whether the security in question is of an equity or of a fixed type, but it is undoubtedly true that a rounded judgment would ideally give some weight to most of these factors, in so far as data on them were available.

"Intrinsic Value" an Inexact and Changing Concept. Regardless of the soundness of a given security and its suitability for the objective at hand, the investor naturally cannot consider its attraction separately from the price which must be paid for its purchase. Issues of the soundest kind may well be so overpriced as to render their purchase extremely unwise, and, conversely, extremely low quality issues may be so reasonably priced that for some purposes they have real attraction. The heart of the analyst's problem, where the various threads of his work come together to be joined and interpreted as a whole, lies in determination of the "value" offered him by a security. What is the security worth, in view of the risks involved and the prospective return, and eliminating transitory current influences on market price?

Valuation is inevitably a more difficult and uncertain operation than is classification. The concept of value in a security, or "intrinsic value" as it is often called to distinguish it more clearly from market price, is not only incapable of exact determination at any given time but is dynamic and changing. Not only do many imponderables always exist, but they are also in a continual state of flux.

Moreover, serious disparities may develop and persist for long periods between intrinsic value and the prices at which actual transfers of the security are being made. To the old axiom, "The market is always right," should be added the significant qualification, *eventually*. Persistent disregard of intrinsic values is, however, far less common with fixed obligations of good quality than with securities with equity characteristics. Equities, as we have already noted, are not normally valued in the market solely on a rational basis. On the contrary, their prices are subject to thoroughly irrational swings, and they often move well above or well below any reasonable calculation of intrinsic value.

The valuation of securities has sometimes been regarded as a scientific laboratory process in which the merits and faults of individual issues are weighed and then judged dispassionately according to fixed standards determined by experience. To a degree, such a course is possible, but the parallel is more apt if we compare the process to chemical analysis of a complex and unstable compound which it is impossible to isolate and which thus is continually losing some elements and combining with other and new elements. Investment has no significance except over a period of time, and in consequence static investment analysis, based solely on existing facts, is of limited usefulness. The longer our commitment, the more heavily dependent are we on the accuracy of our anticipation of future developments.

The obstacles to an exact determination of intrinsic value, even as of a given moment, are many, of course, despite the general abundance of statistical data and the increasing thoroughness and clarity of corporate financial reports. These obstacles center chiefly around the interpretation of available data rather than its adequacy. As we remarked in an earlier chapter, there unfortunately is no way to measure the various risks and factors of safety or profit in units such that they may be accurately compared. Our judgment of value necessarily is drawn from the crude balancing of a complex array of imperfectly comparable favorable and unfavorable factors, and it simply cannot be exact, although naturally a far less difficult and more accurate judgment is possible with some types of securities than with others. There is an obvious gulf between analysis of high-grade municipal bonds and of an obscure industrial equity.

"Book Value" Lacking in Realism. At one time, great reliance was placed on "book value," or the valuation of assets reflected on the books of a corporation, as a measure of intrinsic value. Book value is a definite and readily ascertainable sum. If a fixed obligation possessed a lien on assets valued on the books at an adequate figure it was believed to be properly protected, and if an equity security possessed a book value of a certain amount it was assumed that earnings would return a reasonable percentage on this invested capital. Apart from the obvious hazard of dishonest appraisal of assets on the books and the effect of improper accounting practices, however, long experience has revealed the absurdity of assuming the real value of a concern to its owners and creditors to be equivalent to the capital that has been invested in it.

Realistic appraisal of values, though it by no means neglects assets, looks primarily to earning power, for the reason that assets unable to produce income seldom have much worth to their owners, whatever their book value may be. The tremendous write-downs of book values of corporate properties during the 1930's were in large part recognition that the earning power these properties had been thought to possess was not there, though physically the properties may not have changed. This factor is particularly important to the average small owner of preferred or common stock, who is not promised return of his capital on a maturity date as is the bondholder, and for whom liquidation is rarely a practical alternative, because of the vested interest of the management and the workers in maintenance of the business on an operating basis. Much of the value of any business, of course, is as a "going concern," with an organization of experienced employees and established trade relationships, a value which is largely dissipated in liquidation.

The example *par excellence* of clearly ascertainable intrinsic value was once thought to be a mortgage bond possessing the first lien on an important stretch of railroad mileage with an actual cost and book valuation well in excess of the amount of the mortgage. Essential as such property may be to the railroad concerned, however, it may be worth practically nothing for any other purpose. The bondholder and his widely scattered fellow bondholders may foreclose and take possession of the property, but there is usually nothing they can do with it that will preserve an appreciable amount of its value except to raise additional capital and start operation of a railroad themselves, without any experience or management organization to begin with, and probably without any desire at all on their part either to provide equity capital or to undertake managerial responsibilities. The consequence is that such property is ordinarily left in the hands of the existing management on the basis of the best terms that can be arranged, with heavy weight given to the earning power of the railroad as a whole, and thus to what it can afford to pay as well as to the original contractual privileges of the mortgage issue.

Increasing emphasis on earning power correspondingly increases the roughness of any calculation of intrinsic value, because estimation of earning power must place great emphasis on future expectations and in consequence is particularly dependent on intangible, qualitative forces. Judgment is also made difficult by the erratic movement of earnings from year to year that is typical of so many industries. How, one may ask, are we to compare the securities of a concern whose earnings are regular and relatively steady year after year with the securities of another concern whose earnings, though perhaps greater on the average, fluctuate wildly from large profits to large deficits and back again? Of what practical use in valuation of a security are its "average earnings," if actually an average year is almost never seen?

The difficulties arising from inability to arrive at anything more than a rough, approximate valuation of earning power are, fortunately, considerably less important in the appraisal of fixed obligations than in the appraisal of equities. The reason for this is that with fixed obligations it is only necessary for the analyst to satisfy himself that earnings will provide an adequate margin of coverage for payments on the securities in question. A more exact knowledge of the earning power to be expected is not usually essential. Earnings beyond the point of adequate protection are desirable, and they usually find some reflection in price, yet they may not add appreciably to the value of the issue to the investor, who will not receive any greater income in consequence, but only a somewhat greater assurance that payments will not be interrupted.

With equities, on the other hand, each additional unit of earning power theoretically adds an equal value and thus should be taken directly into account in valuation. This need for a more exact appraisal of so elusive and unpredictable an element as earning power is a major factor in making common stocks less susceptible to satisfactory analysis than are fixed obligations. With any security, of course, it is only common sense that if analysis becomes hopelessly involved or excessively vague in its indication of value the best course is to abandon the effort and turn to other issues of a more tractable or tangible nature.

Need to Maintain Proper Perspective. The picture of analysis as a crude operation producing uncertain results can easily be overdrawn. As a matter of fact, considerable accuracy is possible with certain types of high-grade or short-term fixed securities. Moreover, even a rough approximation of value is useful if it is the best approximation that may be had.

It is essential to realize, at the same time, that the investor's success is not dependent on truly precise valuation. He does not need to base his action on an exact knowledge of the value of an issue, but he may properly be satisfied with reasonable assurance that the price he pays is not in excess of a rough zone where adequate value is believed to exist. In fact, pretense of exactness is dangerous because of its tendency to breed overconfi dence. Broad gradations of value are more trustworthy and hence more useful. The investor will gain from confining his interest in valuation to the establishment of such broad zones, with the aim of ascertaining merely whether a given price is reasonable, or somewhat high or low, or extremely high or low. The width of these zones will naturally vary greatly, in accordance with the nature of the different types of securities analyzed.

The inconvenient fact that valuation of a security, even though only approximate, requires occasional revision under the impact of changing conditions is hardly a basis for discouragement with the utility of analysis. On the contrary, it is a reason for periodic fresh analyses, as instruments useful in the supervision of investments after they are made. It is fundamental to bear in mind, of course, that selection of securities for purchase is only a part of the problem; their subsequent progress must be watched carefully, and, in the event weaknesses develop or their prices rise unjustifiably, they must be sold.

It is well, also, to maintain a proper perspective and recognize that an important degree of protection against errors in analysis is afforded by the diversification provided in a soundly arranged investment program. The investor does not need to succeed or fail on the strength of a single analysis. Instead, he may look to the results of a series of separate analyses, the average accuracy of which should not be seriously affected by their unavoidable individual roughness. Frequently, of course, a single one of the securities examined will seem to offer by far the best value. Still, no matter how outstandingly attractive such an issue may appear, the investor can never be justified in abandoning sound basic policy and yielding to the temptation to attempt a single brilliant success.

Finally, we shall need to bear in mind the essential distinction between the general risks discussed in Part 3, those risks which primarily affect broad classes of securities, and the narrower risks affecting particularly the solvency and profitability of the individual enterprise, risks which we shall attempt to measure through analysis. Separation, so far as is possible, of the latter "credit risks" from the broader risks, such as those present in fluctuations in purchasing power and in money rates, will lessen confusion of thought and will perhaps help to avoid inadvertently giving some risks double weight.

Methods of Classification and Appraisal. Our purpose here is not to set forth all the refinements of analytical method or all the various approaches appropriate to the study of the many different types and subtypes of securities on the market. That is the task of other and more specialized works. We are interested mainly in outlining those basic principles which appear to underlie success in this field. We may also suggest, incidentally, that there is no completely satisfactory substitute for practical experience in the study of living and current examples, which is a proposition surprisingly different from study of "cold-storage" cases taken from the past.

A first point for the analyst to consider is that he does not have unlimited time at his disposal. Before undertaking the detailed analysis of a security, he should have good reason to believe on the basis of a preliminary survey that the possibility of the security's being attractive for his purposes is not unduly remote. A brief "thumbnail" sketch, perhaps only a mental picture, of the nature of the security and the more obvious factors affecting it is thus his first product.

A sketch of this kind is also helpful in determining a plan of attack for more detailed analysis. It will usually make evident the specific directions inquiry must take in order to appraise apparent major points of weakness or of strength. Flexibility in the general method of approach is necessary on this account, for extremely varied problems are certain to be encountered. A broad picture, obtained at the start, of the nature of the enterprise which the security represents and of the principal variables influencing judgment of its value will be particularly helpful in keeping the inevitable mass of details in perspective as they accumulate, and in the determination of the source from which the basic value of the security arises.

There is need to emphasize, again, that the process of analysis must be adapted to the purposes in the mind of the investor as well as to the nature of the individual issue. Analysis not geared to a specific objective is of limited utility; it is of practical value only when it is related to contemplated action. Just as a security attractive for one purpose may be undesirable for another, so may a security possess many strong points which, though reflected in its price, are worth little or nothing to the purchaser. For example, one not subject to high surtaxes on income would be foolish to place his funds in tax-exempt bonds at the premiums they command because of the exemption privilege. The investor should avoid paying for what he does not need. His analysis should bring out the extent to which the provisions or qualities of the security in question are at variance with his personal objectives.

Basic differences exist, of course, in the methods of analysis appropriate to fixed obligations and to equities. We shall enlarge on these differences later in chapters on analysis of the various principal types. However, at this point we may repeat the warning that such differences go deeper than names, and that the analyst will do well to consider the circumstances of the individual case in some detail before classifying a security rigidly, Variations in the capital structures, financial positions, and earnings trends of individual companies, and in the relative stability of different industries, may render heavy stress on nominal priorities or privileges highly misleading.

Variations in Type of Enterprise. The nature of the enterprise to be studied is an important variable in determining the approach followed by the analyst. Is the security in question an obligation of a government or political subdivision? Is it a mortgage on a private residence? Is it an obligation of or a share in a public utility enterprise, or an organization engaged in manufacturing, mining, distributing, financing, or other industrial or commercial activity? Though the purposes for which capital is employed are tremendously varied, they may be classified into certain rough groupings. The characteristic differences existing between these general groups are of the greatest significance to the analyst.

Whether a security is the obligation of a civil authority or of a private corporation is a basic distinction. Analysis of an issue dependent on the good faith of political groups and supported by the taxing power is utterly different in most respects from analysis of corporate securities dependent on business profits and protected by the ownership of realizable assets. Likewise, the analysis of mortgage loans on specific real property or of the equity ownership of it is based principally upon a technique of a highly specialized nature.

Most corporate securities fall naturally into a classification by industries, according to the dominant characteristics of the businesses they represent. Methods of analysis need to be adapted to the special risks and problems presented by each industry. Banks, for example, are in a distinct type of business which cannot be measured by the same standards as might the operation of railroads, electric light and power systems, meat-packing plants, department stores, steel works, gold mines, textile mills, sugar refineries, or oil wells. Adequate recognition of these differences by the analyst will result in a more realistic appraisal of values and will permit more satisfactory comparisons between different opportunities.

Differences among industries, obviously, are of greater significance with respect to the major divisions, such as between mining, manufacturing, financing, and distributing, than they are with reference to the numerous divisions of a less fundamental nature. From the standpoint of methods of analysis, the difference between automobile manufacture and refrigerator manufacture is minor, whereas the difference between oil production and fire insurance underwriting is basic. It should be recognized that many of the operations and problems of separate industries are often comparable, and thus susceptible to the same methods of analysis. Neither should it be overlooked that there may be great variations in the extent to which the operations of a given business will fall within a single industry classification. More frequently than not, the larger companies will be found actually to be engaged in several separate industries, even if to widely varying degrees.

In investment management, extended study of the relative attractiveness of the various industries is sometimes made a prerequisite to the consideration of individual issues, being regarded as an essential prior step. Without disputing in the least the need for a thorough knowledge of different industries and the problems they face, we prefer to consider the analysis of an industry as an integral part of the analysis of the individual security. The attractiveness of an industry for investment has meaning for our purposes only in terms of the actual securities available. Likewise, the individual company's position and prospects are inseparable from those of the industry, whether or not the latter may be outweighed in the final analysis by other factors.

It is only common sense for the investor to attempt to put himself in a position to take advantage of favorable industrial trends and to protect himself against adverse trends of this nature, so far as is possible. A strong and carefully selected company may succeed in swimming against the outgoing tide of a declining industry, but even a weak company may be carried along to success by a prosperous industry.

Nevertheless, dangers exist in the overemphasis of general industrial trends at the expense of more tangible factors of value. The bright, or supposedly bright, outlook of an industry has often served as an excuse for brushing aside all temperance in the valuation of the securities within the industry, as in the case of public utility, aviation, and many other shares in 1929, or of distillery shares in 1933. Similarly, though it may not have brought direct loss, the actually or apparently unsatisfactory position of some industries has frequently led to the neglect of outstanding individual investment opportunities. Close attention to the relative positions of different industries, unless confined rather strictly to underlying trends, clearly tends to encourage an undesirably short-term point of view and to lead to the frequent shifting of investments back and forth between industries for reasons of temporary advantage, real or fancied.

Analysis of Industrial Factors. Recognizing that some danger exists in excessive stress on anticipated industrial trends, which can be only imperfectly predicted and are frequently overdiscounted by the security markets, we still cannot analyze a company separately from the business in which it is engaged. Appraisal of the general forces of change operating in the industry and their probable future impact on the individual company is essential for intelligent interpretation and evaluation of the company's past experience and present position as reflected in its accounting statements.

Successful appraisal of dynamic industrial forces involves a technique of economic forecasting as well as of statistical analysis. We shall not attempt here to cover the broad subject of industrial analysis with any thoroughness, but shall merely point out certain significant aspects.[1] More detailed consideration of some typical industries will be undertaken later.

Analysis of an industry should develop knowledge of its history, organization, problems, and trends, with particular attention to the competitive situation both within the industry and with respect to other industries. It should cover conditions over a sufficient period of time to provide a trustworthy basis for judgment. A convenient division of the principal points requiring examination follows:

(1) Nature of the hazards to invested capital associated with the industry.

(2) Relative degree of stability or instability in earning power.

(3) Relative maturity of development, with its implications regarding prospective growth or decline.

(4) Attraction of the industry for investment under conditions currently prevailing.

Hazards to Invested Capital

The special hazards to invested capital associated with some industries are notorious, as in unproved mining or oil ventures. It is pertinent to inquire, therefore, to what extent large risks of loss are inherent in the nature of operations. An engineering concern, for example, may risk its existence on the fulfillment of a single large contract. Some industries cannot avoid large losses on inventories in periods when commodity prices decline. Others are particularly vulnerable to credit losses, to foreign exchange losses, or to sudden shifts in demand, as when they are heavily dependent on a few customers. New developments may make heavy investment in plant and equipment obsolete. Industries operating abroad may be threatened with seizure of their plants, prohibitive taxation, or exclusion from markets, whereas some domestic industries can survive only so long as they receive subsidies or the protection of high tariff barriers. Domestic industries may also be threatened with prohibitive taxation and with public regulation limiting profits or with actual public competition.

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[1] On this subject see C. E. Fraser and G. F. Doriot, *Analyzing Our Industries,* McGraw-Hill, New York, 1932. See also the exposition of characteristics of growing and declining industries in E. S. Mead and J. Grodinsky, *The Ebb and Flow of Investment Values,* Appleton, New York, 1939.

It is fundamental to inquire into the basic function which the industry serves in order to judge its essentiality and permanency. On this factor may hinge the suitability of an industry for many investment purposes. How vulnerable is the industry to changes in styles, tastes, or habits? Is the product a staple, a specialty, or a novelty? Are substitute products growing in importance? Are other substitutes likely to be invented, or cheaper processes likely to be developed? Are existing competitive conditions satisfactory? Is there likelihood of new competition from abroad, from new domestic companies more favorably located or more efficient, or from newly discovered sources of raw materials? Does a monopolistic control exist? If so, what is the reason for its existence, and what is the attitude of the government toward it?

In considering the possible hazards involved in an industry, it is necessary to remember that no two companies are completely alike, and that the various individual concerns consequently would not be affected equally by unfavorable developments. Owing to progressive management and a sound financial position and conservative capital structure, one company may be materially less vulnerable to such risks than is its competitor. Comparative analysis of the individual companies in these respects is an essential step in forming judgments.

RELATIVE STABILITY OF EARNING POWER

Relative stability of earning power is an important consideration for the investor who wishes to obtain steady income and avoid unnecessary worry. The degree of stability in an industry is influenced strongly by the presence or absence of the hazards we have noted. Industries affected seriously by fluctuations in commodity prices, for example, usually produce most unstable earnings. The primary factor in instability, however, is the business cycle, which is greatly accentuated in the earnings of industries dealing in luxury items such as expensive clothes, or durable capital goods such as steel rails. Cyclical influences are correspondingly minimized in the earnings of producers of staple, nondurable products such as cigarettes, low-priced shoes and clothing, and numerous foods.

Many industries, of course, follow cyclical patterns of their own, often diverging materially from the general cycle both in the amplitude and in the length of their fluctuations. Variations in profit margins may at times be more important than fluctuations in demand. Knowledge of these tendencies may be very useful in weighing the relative attraction of an industry at a given time.

Here, again, factors of stability and cyclical characteristics, though they may be typical of an industry, must be considered in light of the circumstances of the individual issue, for a pyramided capital structure or a marginal plant can cause a company in the most stable industry to suffer wide fluctuations in earning power and in the price of its securities. A company with a conservative capital structure, favorable location, alert management, and efficient plant may produce consistent profits and may enjoy relatively stable markets for its securities while conducting a business of a typically unstable character.

Relative Maturity of Development

Similar to the question of stability is that of the degree of maturity of a given industry, or its age and stage of development. It is undeniable that industries exhibit different characteristics at different stages of their development. The so-called "life cycle theory of investing," to which we referred briefly at an earlier point, holds that business corporations, like human beings, experience life cycles of growth, maturity, and decline, running from the cradle to the grave. Granting that such cycles do exist, though not often in a literal sense (for the decline of a company once firmly established is usually lingering and subject to reversal through revitalization of management or infusion of new products), the analyst must include in his study some consideration of the stage of development that appears to have been reached. It is held by some that, to be sound, investments must be confined to industries clearly not past the stage of maturity, and that worth-while capital gains may ordinarily be anticipated with any assurance only in those "growth companies" which have not yet attained maturity. The logic in these contentions is apparent, despite reasons for belief that they are too broad. With respect to the second point, particularly, the practical difficulties in the selection of growth situations in advance of their growth should not be minimized.

Growth characteristics in an industry and in a particular company may be measured in terms of increasing production and sales and in terms of persistent expansion in earnings. Comparative statistics are required to separate growth factors from general industrial expansion. Past growth and present health, however, are secondary factors in the selection of growth companies, and greatest reliance is necessarily placed on forecasting.

Whether growth is steady or is attained through a succession of periods of over-rapid expansion and of curtailment is important to owners of securities in an industry, especially when the companies concerned are young and unseasoned or weak financially. Sound investment is virtually impossible in the hazardous early organizational and promotional stages of even the most promising business venture, when estimates of earning power are little better than guesses and inevitable operating problems have yet to take form. Dividends on the common shares of such enterprises are necessarily deferred or restricted until financial resources have been built up. The investor who wishes to strengthen his position or to obtain capital gains through participation in growing industries will do well to avoid companies in early stages of growth and to concentrate upon the securities of strong, established companies which through active research and forward-looking management are enjoying a healthy growth in new products or new uses for old products.

Conditions Currently Prevailing

We have remarked repeatedly on the dangers of emphasis on a short-term viewpoint, yet we cannot arrive at a final conclusion with regard to the attractiveness of the securities in an industry for investment purposes without some attention to factors of a purely temporary nature. All industries pass through short-term cycles of prosperity and depression, albeit the pattern of the cycles may vary greatly between industries. It is only common sense to examine the industry with an eye to the degree of prosperity or depression currently prevailing in it. Without attempting to speculate about the future, the analyst may still be wary of an industry that is admittedly enjoying unusual prosperity. Similarly, he may appraise depressed conditions leniently provided that the causes appear to be of a temporary nature.

Analysis of Financial Statements. As we have said, no two companies are completely alike, whether or not the industrial factors affecting them are identical. The primary tangible evidence of this individuality and the most essential basis for appraisal of a company is supplied by the financial statements, which present standardized accounts reflecting financial condition and earnings experience. Such measures must be supplemented by consideration of qualitative factors, yet they afford by far the most tangible and reliable foundation for valuation, especially for comparison with other companies and securities. With securities where a minimum of dependence is to be placed on future trends, analysis of this information is particularly important.

When reasonably adequate financial statements are not available, analysis becomes guesswork, and the analyst is best advised to drop the situation from consideration. Comparability of the data with those available on other companies is desirable, and part of the work of the analyst is the preparation, on a comparable basis, of information supplied in different forms by the various companies. This function is of the greatest importance for the analyst who is engaged in preparing analyses on the basis of which investment decisions will be made and action taken by other persons.

A primary requisite for intelligent interpretation of financial statements is familiarity with accounting principles and practices. The analyst must learn which accounting ratios and measures are of value for his purpose, how to construct them, and how to employ them in analysis. The more important of these ratios and measures and some of the principal obstacles encountered in their use will be discussed in later chapters.

The analyst will find his approach to financial factors simpler and more efficient if he begins with a broad picture in mind of the nature of the particular company's business, based on the brief preliminary sketch and including especially attention to the industrial influences we have described. The perspective afforded by such a picture of the functions of the business, its main sources of profit, and its weaknesses will lead to a sounder and better-balanced plan of attack. With the superabundance of information often available, it is sometimes easier to compile endless figures than to select those which are pertinent and useful. It is important not to value the work done solely on the basis of its quantity or its detail.

A principal handicap in the application of analysis of financial statements to a dynamic investment situation is the fact that the figures involved represent past history. The dry facts of the past can be stressed too much at the expense of foresight and common sense interpretation of visible trends. Part of the solution to this problem of future developments is obtained through consideration of industrial trends and of the position of the company within the industry. An equally important solution, however, is that of continuing analysis of the situation after investment is made. No matter how thorough the original study, conditions may change radically afterwards, and the most certain method of uncovering such change is through periodic reappraisal.

Analysis of Qualitative Factors. Because investments must be made with an eye to the future and because the past is only significant for its implications regarding the future, the numerous qualitative factors influencing the position of a company and its future success are deserving of great importance. That the importance given them is not in practice heavier is due to their nebulous and uncertain nature. The ability of management, for example, is a highly important factor in a company's success, yet attempts at its appraisal have often proved extremely unreliable.

Qualitative factors are broad in scope but are mainly tied in with the management of the company and the relative position it has won for the company in its industry. Considerations of growth are weighed in this respect, as well as questions of diversification of products and clientele, goodwill, trade leadership, labor problems, efficiency of plants, and so forth.

Judgment of a management may be based on (1) its ability in operation of the business, (2) the type of chances it takes in its operations, (3) its ability to plan for the future, (4) its integrity. Opportunity to measure these factors with assurance may vary greatly, as may the management's willingness to supply information to security owners. Questions of control and banking sponsorship should be investigated along with management. It is essential to ask, though not always easy to answer, the question, "How does the management expect to profit personally?" Does the management's financial stake consist of bonds, preferred stock, or common stock of the company? Or is it solely in the salaries received? Are there "pipe lines" to privately owned realty or supply companies? Do options to purchase stock exist, or bonus arrangements? If such options or bonuses exist, are they related to volume, to profits, or to the market price of the stock? What type of operation do they encourage?

Important qualitative hazards in many instances are the political position of the company and its vulnerability to regulation, taxation, or political discrimination of varying sorts. A serious hazard in the case of some highly successful managements is the degree to which they are dependent on a few men whose retirement or death might result in material change.

A qualitative factor of importance that may not affect the worth of a company but does affect the valuation of its securities is the activity of the market for the securities and the extent to which this market has become "seasoned" through the passage of time since the original offering. New and unseasoned issues, even if representing old, established concerns, naturally cannot at first command the confidence placed in well-known, widely distributed issues, regardless of relative merit. If an active market does not develop in the new security, such disparities may persist indefinitely.

As intangible qualitative factors and appraisal of industrial trends grow in importance in the valuation of securities, there is an increasing tendency for the security markets to give rein to prevailing sentiment regarding outstanding managements and promising industries and to establish prices discounting these factors and reflecting in addition a considerable premium for popularity alone. Prices in these instances rise relatively to the intrinsic values obtainable in other issues simply on the basis of an active demand and a limited supply. Even after the causes of such popularity may have disappeared, the securities in question tend to be supported by the psychological influence of the prestige and price levels enjoyed in the past. Though relative popularity does not return income to the investor, and often defies analysis, it is a factor for the practical analyst to include in his survey.

SUPPLEMENTARY READINGS

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PROJECTS

1. Apply to two important industries the four principal points of examination listed in this chapter.

2. Select one of these two industries and prepare a brief study, setting forth its present attraction or lack of attraction for investment purposes.

CHAPTER 18 Sources of Information

Judgment No Better than the Data on which It Is Founded. Looking to the mechanics of the process of analysis, we may divide the handling of statistical data and other relevant information into four steps: (1) collecting, (2) sifting and testing, (3) organizing and correlating, and (4) interpreting. The later steps are the more difficult, and their successful execution is a more serious problem for the analyst. In stressing the importance of careful study and interpretation of data, however, we should not overlook the necessity that the information we work with be trustworthy and reasonably complete. It is too easy to assume that obtaining the pertinent facts regarding a security is only a matter of routine. We cannot expect our judgment to be better than the information on which it is founded.

As a matter of fact, it is rarely possible to learn all the analyst might like to know about a situation. Were it possible, it would generally involve a prohibitive expense. It is the analyst's task to determine which facts are really essential in a given instance and which may be safely assumed without extensive investigation, or perhaps neglected entirely. Superabundance of some types of information is frequently just as much of a problem as lack of other types of information; in either case it is necessary to guard against devoting time and effort beyond that justified by the importance of the facts in question.

There is also need, though it would seem unnecessary to stress it, for a careful impartiality in the selection of data, so that selection will not unconsciously be made to fit prearranged conclusions. There is truth in the saying that in the security markets it is always possible to prove opposite contentions, the conclusion reached depending on the type of facts the analyst looks for and where he looks for them as well as on how he chooses to balance and interpret them.

Much of the analyst's success will of course hinge on his ability to ferret out and recognize the value of essential pieces of information which are not generally known or appreciated and thus not already discounted in market prices. Familiarity and contact with the principal sources of information can be extremely helpful in obtaining a thorough and accurate foundation for judgment. In this respect, the professional analyst naturally has a large advantage over the untrained or isolated investor. Similarly, the professional analyst, who for one reason or another is placed on intimate terms with the company concerned, perhaps with access to the books in connection with a proposed underwriting, is in a preferred position.

The Preliminary Survey. The point of departure for the collection of our information is the preliminary survey we have already suggested as a labor-saving device and as a means of attaining perspective. Such a survey will reveal the types of data essential in the particular case. Certain points will be seen to be of special importance, and note may be made of any serious gaps in the information on which investigation will need to center.

Where shall the analyst obtain this preliminary general picture? Usually the most satisfactory source is one of several comprehensive statistical services, of which the best known are Moody's, Standard & Poor's, and Fitch's. The investment manuals, descriptive cards, and current news supplements published by these agencies are excellent sources for obtaining quickly an accurate general picture of a given security. They are widely available in banks, brokerage offices, investment houses, and libraries.

The information provided usually includes brief comment on the history and nature of operations of the issuing concern, lists of officers and directors, financial statements for recent years, description of provisions relative to the securities outstanding, and records of price ranges and of dividend and interest payments. Calculations are made of earnings per share of stock and of the number of times interest charges have been covered, and there is a growing tendency to show the more important financial and operating ratios, such as the ratio of current assets to current liabilities and the margin of profit on sales. For securities in which there is wide public interest, a large volume of information is frequently provided. Virtually all companies whose securities possess a public market are included, and though such services cannot pretend always to be complete and accurate they are, by and large, thoroughly reliable.

Securities so obscure or so closely held as to be omitted from the investment manuals are questionable vehicles for the average investor.[1]

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[1] Records of the many thousands of inactive, liquidated, and dissolved companies and of worthless securities are to be found in the *Marvyn Scudder Manuals* and their successor, the *Robert D. Fisher Manual.*

At the least, such issues will require a much more careful investigation in order to disclose and test the appropriate facts. Both at this stage and later, the analyst will find that those issues accorded widest publicity generally involve the least investigation, for more data will be readily available, and they will have been tested and analyzed by many others whose work will often be obtainable.

Analyses prepared by statistical agencies or investment houses of good reputation are a logical supplement to the preliminary survey and are often most helpful in providing information not otherwise readily available. It is frequently possible, also, to employ to advantage descriptive articles published in financial journals, trade magazines, or more general publications such as, for example, *Fortune,* which makes a practice of describing and commenting on the history and operations of business enterprises.

Once the preliminary survey has indicated the desirability of more extended study, the analyst will usually retrace his steps and start again from the beginning. The scope of his investigation will broaden, information will be sought in greater detail, and a more critical attitude will be adopted. It would be impractical to attempt to list here the great variety of information that might be desired in a given instance, or the virtually unlimited possible sources of information. A less ambitious effort will be adequate to indicate the principal information needed and the more important sources.

Provisions of the Security. A first distinction in the data required is between information about the rights and privileges of a given security and information bearing on the present position and future prospects of the business or other organization issuing the security. In contrast with the latter type of data, the provisions of a security are a matter which is definite and which may usually be determined with relatively small effort. Accurate information on these provisions is, of course, essential.

The amount of work involved in this phase of the investigation will depend on the class of security and the availability of data in the manuals. More care is ordinarily required in determining the position of a senior security or of a special class of stock than is needed with a common stock, which after all possesses the residual equity, yet it is possible for the position of the common stockholder to be seriously altered by unusual rights and privileges granted to senior securities or to the management or employees.

The investment manuals are the most convenient source of information about the provisions of securities, and they will usually cover the essential points. Listing applications, readily obtained from the security exchanges, may give greater detail for listed securities. For new issues, the data given in prospectuses are ordinarily quite adequate.

When for some reason it is thought desirable to obtain a word-for-word description of the terms of issue, however, the analyst may refer to the appropriate original documents. With bonds, a copy of the indenture or deed of trust may usually be obtained on request or at any rate may be inspected at the office of the trustee. Where a complicated series of mortgages exists, as with the typical railroad, their relative positions are made clearer by special services such as the *White & Kemble* atlas of railroad mortgages and the *Copeland* service showing the density of freight traffic supporting the various mortgages.

The provisions governing stock issues are normally fewer and simpler, so that summaries in the manuals and in listing applications are nearly always adequate. Complete terms are to be found in the charter of the company, which is generally not readily available. The charter provisions, particularly for preferred stock, need to be supplemented by knowledge of any important peculiarities in the laws of the state of incorporation which may automatically affect the rights of different classes of stock.

Information about the Industry. Information with respect to the position and prospects of the issuing concern falls into two divisions: information on the position and prospects of the general industrial or other field in which the concern operates, and detailed financial and statistical data and other information applicable to the individual organization. Material bearing on the industry in general rarely is difficult to obtain. Statistics of production, consumption, new orders, inventories, prices, and a host of other factors are available with varying degrees of accuracy and completeness for most important industries, and new statistical series are continually being added. Likewise, information on competitive trends, new inventions, labor relations, political problems, and similar factors is usually obtainable without great difficulty.

The basic sources of this information are various governmental bureaus, trade associations, and trade publications. An especially comprehensive group of statistical series is provided weekly and monthly by the *Survey of Current Business* published by the Department of Commerce. This is supplemented by more detailed industry data published in the Department's *Industry Reports* and *Facts for Industry* series. Other typical publications of the government include *The Agricultural Situation,* monthly bulletin of the Department of Agriculture, the *Monthly Labor Review,* and various periodic releases covering important commodities and industries. These periodicals are in addition to a long list of studies available on pertinent, specific subjects.

The *Statistical Abstract* is a helpful general source which may be supplemented with the *Census of Manufactures,* the *Census of Business,* and other volumes, including annual publications such as the *Minerals Yearbook,* which is a useful compendium of statistics and of developments of the mineral industries. Reports of regulatory commissions such as the Interstate Commerce Commission, the Federal Trade Commission, the Federal Communications Commission, the Maritime Commission, the Securities and Exchange Commission, and the various state utility and railroad commissions are also valuable sources of data on the industries reporting to them or studied by them.

Many trade associations collect and publish statistical data, often in considerable detail. Typical of these associations are the American Iron and Steel Institute, the Edison Electric Institute, the American Railway Association, the American Petroleum Institute, the Copper Institute, and the Rubber Manufacturers' Association.

Trade journals are a particularly useful source of general knowledge with respect to an industry and the individual companies within it, as well as sources of statistical data. Well-known are *The Iron Age, Steel, Railway Age, The Oil and Gas Journal, Engineering and Mining Journal, Rayon Organon, Engineering News-Record, Paper Trade Journal, Electrical World,* and a long list of others.

A comparable service is performed by certain private agencies, such as the F. W. Dodge Corporation, which provides statistics on the building construction industry, and the Alfred M. Best Company, which specializes in insurance. Of a similar nature are Ward's *Automotive Reports.* Special security manuals are published for some industries, as for example the *Mines Register,* and for some geographical areas. At times, brokerage or commodity trading firms have undertaken the publication of information on certain industries, for example, Farr & Co. on sugar and Handy & Harman on silver. Valuable background material is also sometimes obtained from the numerous published books dealing with the peculiarities and problems of specific industries.

Industrial data from these many sources are gathered together, adjusted, and interpreted by a number of general statistical services, of which the most important is that of the Standard & Poor's Corporation. Some of these agencies also provide periodic studies of conditions and developments within each industry. The average investor will find a great deal of this information satisfactorily presented by less expensive sources, such as *The*

Commercial and Financial Chronicle, Barron's, the *Federal Reserve Bulletin,* the London *Economist,* and other publications.

Publications of this type and the daily financial press, of which the *Wall Street Journal* and the *Journal of Commerce* are the best-known examples, are also for the average investor the most practical sources of general investment information, including matters affecting business trends, money rates, commodity prices, political developments, and so forth. Political information is also provided by several Washington "letter" services, and legislative developments are reported in the *United States News.* On general economic developments, the monthly bulletins published by leading banks are valuable, notably that of the National City Bank of New York.

Company Reports. The basic sources of information on the individual enterprise are the periodic reports on operations and financial condition issued by the organization itself. The completeness of these reports, as well as their frequency, depends both on the general practice of the industry and on the policy of the management. An organization that does not, however, supply at least annually an independently audited report showing both an income statement and a balance sheet is hardly deserving of the investor's attention.

Annual reports are required of all listed corporations and are provided by most other corporations of importance. They are mailed in pamphlet form to all stockholders and are usually sent to others on request. Detailed annual financial reports, often independently audited, are also published by municipalities and other governmental units and agencies. Both corporate and governmental reports, of course, appear in the financial press and are available in the statistical manuals.

Certain statistical agencies and investment houses specialize in data on states, municipalities, and other political units. In many states, summaries of the financial transactions and condition of municipalities are issued by a state department. *The Bond Buyer* is the principal financial journal in this field, whereas among private services Dun and Bradstreet's is well known for its analyses of state and municipal credit.

In addition to accounting statements, often with extensive explanatory footnotes and details, corporate annual reports usually contain more or less helpful textual comment by the president or chairman on operations for the year, managerial policies, new products, problems, or plans for the future. Production, sales, and price statistics are frequently included, sometimes in detail or for a long period of years. Elaborate reports with extensive presentation of operating statistics are especially typical of the railroad and public utility companies. The American Telephone and

Telegraph Company publishes a *Bell Telephone Securities* pamphlet which is almost an investor's manual, containing not only operating statistics and financial data on the parent company and all subsidiaries, but also a listing of significant provisions appertaining to the various security issues outstanding.

The more progressive managements in all lines, realizing the problem faced by their widespread security holders in obtaining adequate information on the progress of the business, have been providing increasingly thorough reports. This trend has been accelerated, of course, by knowledge that much information it was formerly thought wise to keep secret is now publicly available through the Securities and Exchange Commission. Stock exchange authorities have also had much to do with bringing about the issuance of more informative reports.

Interim reports, chiefly on sales or earnings, are of growing importance. They are not always sent to stockholders but may instead be released to the press, from which they are gathered by the statistical services and various financial journals. Such statistical reports are supplemented by occasional official statements or comments on conditions and prospects, though experience has shown that such opinions expressed by officials are often of dubious value. The address of the president at the annual stockholders' meeting is sometimes helpful, as may also be the proxy statement soliciting stockholders' votes on matters to be considered at the annual meeting, for this statement is being made to conform to increasingly exacting standards.

Interim reporting practices vary among industries. Railroads, for example, are required to issue statements of monthly earnings, both gross and net. Most of the larger roads issue weekly reports on the number of freight cars loaded. Many companies in the public utility industry report earnings monthly, and of these some provide weekly totals of their output of kilowatt-hours of electricity. A few industrial companies provide monthly earnings statements, or even monthly balance sheets, but this practice is not yet widespread. Monthly sales reports, however, are the rule in the chain store and mail order merchandising fields, and monthly figures on sales or shipments are released by a scattering of companies in other fields, notably General Motors Corporation and United States Steel Corporation.

The usual interim reports of industrial corporations are published quarterly. With the exception of certain highly seasonal lines of business, which may publish semi-annual reports or no interim reports at all, the quarterly report may be said to be standard. Under pressure from stock exchange and regulatory authorities, the number of companies reporting on this basis has been increasing steadily. A tremendous variation, however, exists in the extent of the information provided in such reports. Too frequently, they contain little more than a bare figure of net earnings.

Reports to Regulatory Agencies. A source of information on individual companies that has grown greatly in importance in recent years lies in the reports made to the various regulatory agencies set up by governmental units. For many years, detailed data on railroad, pipe line, and other transportation companies have been supplied regularly to the Interstate Commerce Commission and the various state commissions. Similarly, public utility companies, life insurance companies, fire and casualty insurance companies, banks, building and loan associations, and many other types of companies have been forced to report to appropriate governmental agencies. These reports are usually available for inspection. There are also available from time to time elaborate special studies made by regulatory or investigating bodies such as the Federal Trade Commission or the Temporary National Economic Committee. By far the most complete historical earnings data available to the public on the automobile industry, for example, were published in 1939 by the Federal Trade Commission as part of a study of alleged monopolistic practices in the industry.

For those concerns which are habitually close-mouthed about their operations, particularly valuable reports are those made in listing applications to the stock exchanges and in prospectuses and registration statements, supplemented with annual reports filed with the Securities and Exchange Commission.

When registration statements contain significant data not made available in the company's published reports, the statistical manuals and services attempt to include it. The task is too great to permit thorough coverage, however, except for the more important companies, and it is complicated by the fact that the Securities and Exchange Commission reports are not available until some time after the publication of the company's report to stockholders. Except for the coverage afforded by the statistical services, this information may be obtained only through inspection at the offices of the Commission or of the stock exchanges on which the company's securities are listed, or through payment of a fee for photostatic copies.

Though the numerous reports required by the Securities and Exchange Commission and other state and federal agencies have in recent years imposed a growing burden of expense on reporting companies, the information obtained has undoubtedly often been of material value to stockholders. Inasmuch as they are paying for its preparation, they should take advantage of it and make an effort to learn if there are any serious discrepancies between reports to the government and the reports they are receiving themselves. If their company fails to register with the Commission and to divulge information which is provided by other companies, the reasons advanced should be examined critically.

Reports to governmental agencies are helpful to the analyst for other reasons besides their generally more complete disclosures. The uniform accounting presentation required is of distinct value in making comparisons between the operations of different companies. There is less chance, for example, that the income account will include large hidden charges or credits which properly should have gone through the surplus account. Independent appraisals of land, plant, or mineral reserves set forth in prospectuses or reports to regulatory bodies will often add a touch of realism to fixed asset values that would otherwise be lacking. Utility and railroad commissions, of course, devote much of their effort toward ascertaining appropriate valuations.

General Information about the Company. Through the combination of these several sources, adequate statistical data will generally be available. When they are not, direct request made to the management may help to fill in the gaps. The policies of managements differ greatly in this respect, but most will honor reasonable requests by bona fide security holders. Naturally, such requests should be for information of a factual nature. The management of a company should not be expected either to offer an opinion on its security issues or to be an impartial judge of their merit.

Personal contact with the management, where feasible, will usually prove of considerable value in judging intangible qualitative factors. Real dangers are involved, however, in such contacts. Even with the best of intentions, a management's point of view is likely to be unduly colored with enthusiasm or pessimism brought on by current successes or current problems. Experience has often revealed the understandable tendency of management to focus its attention on current developments at the expense of more fundamental, longer term trends. With respect to the integrity and ability of management, important as these elements are to the success of an investment, their quality can hardly be determined through a brief acquaintanceship. The factual record of performance must outweigh winning personalities.

This does not mean that a general check on managerial integrity and ability beyond that afforded by operating statistics should not be made. On the contrary, it is essential. It is plainly foolish to entrust one's funds indirectly through the medium of securities to a management one would be unwilling to employ to manage them directly. The degree to which appraisal of these factors must be subject to error, however, should be recognized. Many outside sources are available through which such appraisal may be facilitated. With respect to a company's reputation and trade position, checking with dealers handling its products is often of value. Trade journals frequently are helpful, investment services occasionally are, and competitors, in particular, usually are. The management's general reputation may always be checked through banking sources and agencies such as Dun and Bradstreet. Independent engineers and investigators may also be employed to advantage in appraising qualitative factors in individual situations. There are numerous organizations of this type engaged in so-called "field research" or in specialized studies within certain industries, but the fees of the more competent are usually prohibitive for most investors.

Testing the Data. As information is being gathered, the analyst will consider the reliability of the source, the completeness of the data he is obtaining, and the probable degree of accuracy. Incomplete information on a given point may be as misleading as if it were untrue.

In the case of financial statements, reliance is placed primarily on the auditor's certificate, which should be read in detail for reservations or possible enlightening comments. A company not providing an independently audited statement should ordinarily be eliminated from consideration. It is necessary to go farther, however, and to note whether the audit has been partial or complete and to consider, particularly, the degree to which the statements have been consolidated and relationships with subsidiaries not wholly owned made clear. Possible consequences of an incomplete audit were revealed sensationally in the inventory shortages which led to the receivership of McKesson and Robbins in 1938. It may in some instances be necessary, also, to check the reputation of the auditing firm. When the analyst takes exception to the auditor's method of presentation of a statement, reference to the more standardized reports filed with the Securities and Exchange Commission may be helpful.

Qualitative information, in contrast with financial statements, is rarely subject to really convincing proof of accuracy, and such information in consequence must be examined very critically. The opinion that a given management is extraordinarily capable, for example, may become widespread even if it is at direct variance with actual circumstances. The analyst needs to consider where his information on such a matter has come from, and what bias or hidden motives may have played a part. From the earliest days, investors have been the victims of too ready acceptance of idle rumors or carefully manufactured falsehoods, particularly when presented under the guise of "inside" information or in the form of newspaper items, usually coincidental with strength in the company's securities.

SUPPLEMENTARY READINGS

Coman, E. T., *Sources of Business Information,* Prentice-Hall, New York, 1949, especially Chapter 6.
Graham, B., and D. L. Dodd, *Security Analysis,* McGraw-Hill, New York, 1940, Chapter III.
Jordan, D. F., *Investments,* Prentice-Hall, New York, 1946, Chapters 7 and 8.
McLaren, N. L., *Annual Reports to Stockholders,* Ronald, New York, 1947.
Prime, J. H., *Investment Analysis,* Prentice-Hall, New York, 1946, Appendix A.

PROJECT

Assume that you have been called on to provide a newly organized investment company with a list of public documents, reports, periodicals, and financial services that you regard as the minimum requirement for efficient operation. Prepare such a list and submit as accurate an estimate as you can with respect to the annual cost.

CHAPTER 19 The Balance Sheet

Approach of the Practical Analyst Different from that of the Accountant. The basic factual foundation for analysis of a security is normally provided by the accounting statements which set forth the enterprise's financial position and operating results. Familiarity with accounting principles and practices is therefore an essential qualification for the analyst.

Yet, at the same time, the approach of the analyst to a financial statement is fundamentally different from that of an accountant. The accountant's primary interest ordinarily is in the completeness and technical accuracy of the figures presented, not in their practical usefulness to the investor. Perhaps the accountant's approach should emphasize the latter aspect more than it usually does, but it must be recognized that excessive simplification may defeat its purpose, for complicated financial statements may well be necessary to express adequately the financial situation of a given enterprise. Moreover, it remains true that auditors, by and large, are selected and employed by corporate managements and not by investors, whether or not stockholders go through the motions of confirming the choice.

The analyst, on the other hand, is interested only in extracting certain essential information from the statements. More particularly, he desires information that will help him to form a judgment on a specific security issue. He is not concerned with meticulous detail or with accounting theory, on many aspects of which accountants themselves are far from agreement. He disregards extraneous and unimportant items (importance is not necessarily judged by size), and he is impatient with and wary of the subterfuges sometimes employed in financial statements to sugar-coat unpleasant facts.

Corporation officials sometimes complain at the cavalier fashion in which analysts tend to brush aside fine theoretical distinctions in accounting and proceed to adjust and remodel the accounts to suit their purposes. The analyst, however, unlike the corporation official and the accountant, has little interest in balancing evidence carefully and producing a statement reasonably representing financial condition or operations. Rather, he needs to examine the various items critically in order to produce an *ultraconservative* statement. In so doing, he may disregard numerous minor factors that may be real enough, for he is not out to determine the full value of a security, but only a safe minimum value on which he may rely with some assurance.

The analyst should always bear in mind that after all he is engaged in valuing a security in only a general fashion, realizing the impossibility, or at least impermanence, of any truly exact judgment. He must disabuse himself at the start of any aspirations to great accuracy and will do well to follow the practice of rounding off figures and, in effect at least, making his calculations on a slide rule instead of on a calculating machine. Aside from effort conserved, it is well to avoid believing that the figures possess a greater accuracy than actually is possible or useful. Significance of the fact that a company's current ratio is 2.5 to 1, for example, is not increased in the least by the further knowledge that it is 2.517 to 1.

We shall not attempt in this volume any comprehensive survey of the accounting aspects of analysis.[1] Instead, we shall confine our attention to some of the more important problems posed in certain crucial or disputed areas of accounting which are of definite practical concern to the security analyst. It is desirable for the analyst to determine on a more or less standard approach to these problems in order to facilitate comparison between the statements of different enterprises. At the same time, it must be recognized that there can be no truly hard-and-fast rules and the practical approach must remain flexible.

The Balance Sheet. The balance sheet, or statement of assets and liabilities, supplies a more or less comprehensive picture of the financial condition, capital structure, and "book" valuation of a concern *as of a given moment.* It is a static picture, but one which may be brought to life through comparison of a series of statements for successive dates. Frequently, as we have remarked, it is available quarterly as well as annually, and it is sometimes available even monthly.

The audited balance sheet is less subject to manipulation and arbitrary decision than is the income account, but it is rarely in a form that cannot be improved for purposes of analysis by restatement aimed at clarification or conformance to uniform standards which will permit comparison with statements of other concerns. The analyst scans the individual items carefully and tends to convert the balance sheet into a condensed listing of tangible assets and liabilities serving as a minimum and easily understood basis for valuation.

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[1] For more thorough study, see especially Benjamin Graham and David L. Dodd, *Security Analysis,* McGraw-Hill, New York, 1940. See also Harry G. Guthmann, *The Analysis of Financial Statements,* Prentice-Hall, New York, 1942, and R. D. Kennedy, *Financial Statements,* Richard D. Irwin, Chicago, 1946.

For a representative example of the balance sheet as it reaches the analyst, we shall refer to the statement of the Goodyear Tire & Rubber Company for December 31, 1947, reproduced on pages 296 and 297. This statement was certified without qualification by a leading public accounting firm. Neither distinguished for its excellence nor conspicuous for its faults, it will serve us as a convenient illustration. Textually, the Goodyear annual report for the year presented was above average in completeness, and, as will be observed, its balance sheet presentation included 1946 figures for comparative purposes. On the other hand, the accounting statements were lacking in certain significant details, as will be developed further. A great variation is to be expected, of course, in the thoroughness of detail presented and in the extent to which confusing items are explained either in footnotes or in the text of a report. Some reports, of which those of the railroads are outstanding examples, provide so much data that they are actually confusing to the uninitiated.

The reported statement is followed by a condensed "synopsis" or analytical statement such as might be constructed by an analyst to throw the essential points into clear relief, to place them on a comparable basis with data assembled from the reports of other companies, and to aid in the calculation of appropriate financial ratios. In such a synopsis, the analyst is able to disregard the exigencies of double entry bookkeeping and to translate the balance sheet into a brief series of pertinent facts. The example shown has involved mainly a recasting and restatement of items and does not reflect the paring down and revaluation which might be undertaken for some purposes. The detail required in such a statement is obviously also contingent on the use to which it is to be put.

This synopsis statement, it will be noted, presents data for several widely separated years, thus revealing long-term trends in financial condition. Many companies in their annual reports present comparative figures, at least for the preceding year, as did Goodyear, but this helpful practice is not general. One problem continually recurring in analysis is that of reconciling statements issued by the same concern over a period of years in order to make accurate comparisons possible. Mergers and other structural changes are serious stumbling blocks, and even without such disruptions the form of statement of most concerns is a matter of gradual evolution. Occasionally, abrupt alterations in accounting practices are

THE GOODYEAR TIRE
AND DOMESTIC AND FOREIGN

CONSOLIDATED

ASSETS

	December 31, 1947	December 31, 1946
CURRENT ASSETS:		
Cash	$ 63,411,050	$ 50,792,703
United States Treasury bills	14,966,449	....
Accounts and notes receivable, less reserves for bad debts—1947—$7,376,286; 1946—$6,791,287	63,743,476	70,713,147
Inventories at cost or market whichever is lower	149,332,704	101,684,823
TOTAL CURRENT ASSETS	$291,453,679	$223,190,673
MISCELLANEOUS INVESTMENTS	1,631,717	1,624,637
POST-WAR REFUND OF FOREIGN EXCESS PROFITS TAXES	1,927,811	1,952,957
PROPERTY ACCOUNTS:		
Land, buildings, machinery and equipment, at cost	$295,569,526	$265,392,366
Less: Depreciation and amortization	184,033,297	174,700,189
	$111,536,229	$ 90,692,177
GOODWILL, PATENTS, AND TRADEMARKS	1	1
DEFERRED CHARGES TO FUTURE OPERATIONS	1,295,871	945,699
	$407,845,308	$318,406,144

& RUBBER COMPANY
SUBSIDIARY COMPANIES

BALANCE SHEET

LIABILITIES

	December 31, 1947	December 31, 1946
CURRENT LIABILITIES		
Accounts payable	$ 28,005,437	$ 31,809,626
Foreign bank overdrafts	4,356,395	2,128,175
Provision for United States taxes and renegotiation of war contracts, less U. S. Treasury tax notes—1947—$16,976,278, 1946—$37,850,860	4,971,433	3,889,849
Provision for foreign taxes	11,077,423	10,802,809
TOTAL CURRENT LIABILITIES	$ 48,410,688	$ 48,630,459
FUNDED DEBT:		
Unsecured promissory notes (sinking fund starts in 1951)		
3½%-2¾%, due December 15, 1964	$ 31,579,000	$. . .
3% due December 15, 1967	68,421,000	. ...
First mortgage and collateral trust 3½% 2¾% bonds due December 15, 1964		36,090,000
	$100,000,000	$ 36,090,000
RESERVES:		
For contingencies	$ 25,900,000	$ 25,900,000
For foreign investments	12,500,000	5,000,000
For sundry liabilities, etc	7,226,701	5,702,104
	$ 45,626,701	$ 36,602,104
MINORITY SHAREHOLDERS' EQUITY IN SUBSIDIARY COMPANIES	16,327,808	13,574,777
CAPITAL STOCK:		
$5 00 preferred stock, cumulative, no par value Authorized, 653,341 shares, issued, 601,268 shares, in treasury, 10,765 shares, outstanding, 590,503 shares	$ 59,050,300	$ 59,440,300
Second preferred stock, $7 00 cumulative, no par value Authorized, 189,025 shares, outstanding, none	. ...	....
Common stock, no par value Authorized, 5,000,000 shares, issued, 2,067,699 shares, in treasury, 2,288 shares, outstanding, 2,065,411 shares	11,502,132	11,502,132
	$ 70,552,432	$ 70,942,432
CAPITAL SURPLUS, as per statement attached	19,663,687	19,614,372
EARNED SURPLUS, as per statement attached	107,263,992	92,952,000
	$407,845,308	$318,406,144

CONDENSATION OF CONSOLIDATED BALANCE SHEET OF THE GOODYEAR TIRE & RUBBER COMPANY
(thousands of dollars, as of December 31)

	1947	1939	1932	1929
1. WORKING CAPITAL				
Cash	63,411	25,627	24,982	38,574
U. S. & Can Gov't bonds (cost or market)	31,943	1,507	25,092	3,053
Receivables (less reserves)	63,743	28,850	12,480	23,717
Inventories (cost or market) *	149,333	53,267	36,666	66,112
TOTAL CURRENT ASSETS †	295,930	109,252	99,219	131,455
Less: CURRENT LIABILITIES ‡	65,387	17,516	8,207	15,542
NET WORKING CAPITAL	230,543	91,736	91,012	115,913
Current ratio	*4.5*	*6.2*	*12.1*	*8.5*
Quick ratio	*1.5*	*1.5*	*6.1*	*2.7*
% inventories to current assets	*48*	*49*	*37*	*50*
% inventories to sales	*22*	*27*	*34*	*26*
% receivables to sales	*9*	*14*	*11*	*9*
2 OTHER ASSETS				
Property (at cost)	295,569	184,249	163,293	150,842
Less Depreciation and amortization	184,033	104,379	74,732	48,908
NET FIXED ASSETS §	111,536	79,870	88,561	101,934
Investments, etc...	3,560	1,456	2,510	2,726
3 CAPITAL STRUCTURE				
3½%–2¾% Serial Notes 1951–64 ‖	31,579			
3% Serial Notes, 1952–67 ¶	68,421			
1½% Serial Notes, 1941–44		4,000		
3½% First Mortgage Bonds, 1958		39,000		
5% First Mortgage Bonds, 1957			53,656	56,430
Subsidiary debt		102	4,756	9,678
Subsidiary preferred stock **	14,033	7,914	14,951	16,000
Minority interests **	2,295	1,605	1,424	1,752
TOTAL DEBT AND MINORITY INTERESTS	116,328	52,621	74,787	83,900
Ratio net working capital to total debt, etc	*2.0*	*1.7*	*1.2*	*1.4*
% total debt, etc., to net fixed assets	*104*	*66*	*84*	*82*
$5 cum. Preferred Stock ††	59,050	64,963	...	......
$7 cum. Preferred Stock	.		75,952	79,619
TOTAL SENIOR OBLIGATIONS	175,378	117,584	150,739	163,519
Reserves for sundry liabilities ‡‡	7,227	2,188	2,587	2,124
COMMON STOCK (000's of shares)	2,065	2,059	1,455	1,398
Net working capital per share common	*$112*	*$44*	*$ 62*	*$ 83*
Net fixed assets per share common	*54*	*39*	*61*	*73*
Total net assets per share common	*167*	*84*	*125*	*158*
Less: debt and minority interests per share	*56*	*26*	*51*	*60*
Less: preferred stock per share.	*29*	*31*	*52*	*57*
BOOK VALUE of common (approximate)	*$ 79*	*$26*	*$ 20*	*$ 39*

adopted, in some instances having the effect of obscuring important facts in the process.

The statistical services make an effort to present figures for a series of years, at least for important companies, but such services are constrained to follow reported figures, and adjustment to make the series comparable over a period of years is generally left to the analyst. In this respect, the accounting requirements enforced by the Securities and Exchange Commission are most helpful for the years since 1934, and services are to an increasing degree providing exhibits obtained from reports to the Securities and Exchange Commission rather than relying solely on data reported to stockholders. Within the railroad, public utility, and other regulated industries, of course, a high degree of uniformity in accounting practices has existed as a consequence of standardization prescribed by the Interstate Commerce Commission and other regulatory bodies.

Usually, thorough analysis of an enterprise's financial condition would call for a study of balance sheet data over an extended period (five to ten consecutive years) in order to make clear the trends that had prevailed. In the present instance, to conserve space we have abbreviated the synopsis statement to include data for only four year-ends, 1929, 1932, 1939, and 1947. We have also chosen scattered years instead of consecutive years for the purpose of emphasizing the changes taking place. Comparison of statements "before and after" a deflation in business such as that of 1929–1932 is often helpful in revealing essential financial characteristics of an enterprise, although the years of comparison are too remote to be given much weight in this instance. Occasionally, the changes revealed in balance sheets will utterly belie the earnings reported in the interim.

Condensation of balance sheet data develops information of three principal types: on *working capital* or the current financial position, on *fixed assets* or the real property owned, and on *capital structure* or the long-term debt, equity, surplus, and reserves. The synopsis shown has been divided in this fashion, and we shall comment on each division.

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[*] In 1947 consisted of 43 per cent raw materials and supplies, 10 per cent work in process, 47 per cent finished products, according to statement filed with the Securities and Exchange Commission

[†] In 1947 "reserve for foreign investments" of $12,500,000 has for conservatism been deducted from current assets, since this reserve was to cover possible losses due to governmental exchange restrictions in foreign countries preventing transfer of funds.

[‡] Were notes payable important or other current liabilities out of the ordinary, they would be shown separately.

[§] In 1947 consisted of 9 per cent land, 42 per cent buildings, and 49 per cent machinery and equipment, based on statement filed with the Securities and Exchange Commission

[‖] Interest 3½% to 6/15/50, 2¾% thereafter callable at 103½ to 6/14/50, less thereafter. Held by group of insurance companies.

[¶] Various prepayment rights and call provisions. Held by group of insurance companies.

[**] In 1947 mainly 4 per cent preferred and common of Canadian subsidiary, with smaller preferred issues of Australian and British subsidiaries.

[††] Callable at 105 Sinking fund provides for repurchase each year from preceding year's profits at not exceeding redemption price 10 per cent of consolidated net earnings to be applied, unexpended balance each September 30 reverting to general funds.

[‡‡] If the nature of these reserves were more fully known, they might be found to be in part the equivalent of current liabilities, or, on the other hand, merely free reserves or surplus.

Consolidated Statements. The balance sheet of Goodyear which we have included is a consolidated statement. As most large corporations do, Goodyear operates through numerous subsidiaries, most of them organized to facilitate operation of branch plants or selling organizations remote from the main office and subject to varying local tax laws or special requirements. Whether such subsidiaries are wholly owned or are merely controlled, their financial statements are usually consolidated with those of the parent company in order to present a more nearly adequate picture of the condition and operations of the enterprise as a whole.

The fact that a balance sheet is said to be consolidated, however, does not mean that every controlled company is consolidated. The analyst needs to consider the degree to which consolidation has been complete just as he considers the reputation of the auditors of a so-called audited statement. What degree of control of another company makes consolidation desirable cannot be stated arbitrarily, being a matter to be determined in each individual instance. It may be that a wholly owned subsidiary is properly left out of consolidation if the nature of its business is so much unlike that of the parent company that its inclusion would impair the usefulness of the statement as a whole. Still, the analyst should be put on his guard by a balance sheet containing a relatively large item such as "investments in and advances to subsidiary and affiliated companies," suggesting a possible lack of adequate consolidation.

A properly consolidated balance sheet is essential for the obvious reason that the statement of the parent company alone may give an entirely false impression of financial strength, both as to assets possessed and as to obligations outstanding against them. A subsidiary company, for example, may owe a large obligation which would not be revealed in an unconsolidated parent company statement. Though theoretically such an obligation does not apply to the parent company when it has not been guaranteed, in practice the parent company may be expected to weaken itself in order to bolster a shaky subsidiary. It may be desirable to retain control of the business carried on by the subsidiary, and there is also the question of the financial prestige of the parent company.

It is possible, of course, that an affiliated company may prove just as serious a drain on finances as could a controlled subsidiary. The analyst needs thorough knowledge of such intercompany ramifications. Particularly, he should investigate affiliated companies in which the parent company has no interest but company officials or important stockholders have.

While the consolidated statement gives a total picture of an enterprise which is nearer the truth, it is necessary to consider obstacles which may lie in the way of realizing on assets of subsidiaries. How many of the supposed assets are in reality beyond the reach of the parent company? Unless the subsidiary is fully owned, there are numerous ways in which minority interests may hamper the transfer of funds from it. This is the reason why subsidiary obligations and minority interests in subsidiary common stock often should be ranked ahead of the senior obligation of the parent company. If the funds needed to pay interest on parent company debentures are in the hands of a subsidiary they can only be obtained through borrowing or through a dividend from the subsidiary, subject to the possible opposition of the minority stockholders.

In concerns owning important foreign subsidiaries, the problem of transferring funds to the parent company is aggravated by fluctuations in the value of foreign currencies and by direct restriction of transfers. Many companies now provide information on the proportion of their assets held abroad, and some segregate them in the balance sheet. Such information was provided by Goodyear in 1947, and statements were also available in detail for the foreign subsidiaries in which the principal minority interests existed.

Where substantial minority interests are outstanding, it is highly desirable to possess both a parent company statement and statements for the principal subsidiaries in addition to the consolidated statement. This is particularly true, of course, for the so-called holding company, which does not employ subsidiaries merely as a convenience in operations but is primarily a financial device for the control of separate operating companies. In the more complicated cases, the investor is sometimes led to suspect that holding companies were designed in part at least for his confusion.

Working Capital. The primary financial test of the typical business enterprise is, of course, the adequacy of its working capital. Adequacy of working capital is a direct measure of solvency, or the immediate ability of the concern to carry on business. Events of recent difficult years have perhaps made too much of a fetish of an impregnable working capital position, but it is hard to gainsay the prime importance of this factor. At any rate, it is ordinarily the first point which the analyst checks.

Naturally, what constitutes adequate working capital varies greatly according to the size of the enterprise and the nature of the business engaged in. A large enterprise obviously requires more working capital than a small organization in the same line of business, and the requirements of a public utility, for example, are altogether different from those of a merchandising or manufacturing concern. Special circumstances such as unusual strength in other respects and ability to obtain new capital if required may also render customary rules inapplicable in a given instance.

A weak working capital position, however, requires a thorough and convincing explanation.

Adequacy of working capital is only in part a question of the net *amount* of working capital. The principal tests are *ratios,* especially the familiar *current ratio,* or ratio of total current assets to total current liabilities. For most types of enterprise, this ratio traditionally was expected to show as a minimum a 2-to-1 relationship. During the 1920's and 1930's, more favorable ratios became the rule among the major industrial and mercantile concerns, and investors in consequence were inclined to insist on a higher standard. With the great expansion in business accompanying World War II and the subsequent inflationary period, however, internal resources became less adequate, and current ratios suffered correspondingly. Increasing attention has been directed to the nature of the current assets and liabilities, with a tendency to excuse ratios of less than 2 to 1 if, for example, the current assets are mainly cash and receivables and the current liabilities mainly provisions for income taxes.[2] Nevertheless, excepting the public utilities and railroads, the conservative investor will be wary of a current ratio of less than 2 to 1 until he possesses a satisfactory explanation of the variance. Even in public utility and railroad companies, where the current ratio was once considered of minor significance, the advantages of a comfortable current financial position are evident. For Goodyear, it will be noted that the current ratio in 1947 was 4.5 to 1, a wide margin.

The trend of such a ratio over a period of years is often of more significance than the ratio itself. This is true of ratio analysis generally, for though changing ratios may truly reflect the changing health of a particular business, separate businesses outside the railroad, public utility, and financial fields are seldom sufficiently alike to make profitable close comparison of their respective ratios. A manufacturing concern, for example, may own an extensive plant and large raw material reserves, whereas another company in the same industry may possess a minimum of plant and no raw material reserves, operating only as an assembler of parts and materials purchased from others. There may be similar differences between companies in the duration of the manufacturing process or the terms of payment granted customers. The balance sheet ratios of such concerns could differ radically without any necessary reflection on financial strength. Current ratios may vary widely on a seasonal basis, a point to be remembered when interim statements or statements of companies reporting upon different dates are compared. Such ratios will also be affected by the rate of business activity, which will determine the size of the inventory needed and the volume of trade receivables and payables outstanding.

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[2] Many corporations follow Goodyear's practice of improving the current ratio shown by deducting from both assets and liabilities the amount of tax notes or other Treasury obligations held as offsets to income tax, contract renegotiation, and similar liabilities. There is nothing wrong with this procedure, but a more conservative picture is provided if liabilities are shown at their full amounts until they are actually discharged. A similar, more objectionable practice is that of treating advance payments from customers as a deduction from inventories rather than as liabilities.

A second principal ratio employed to measure working capital is the *quick ratio,* or "acid test," the ratio of cash and readily marketable securities (known as "cash and equivalent") to total current liabilities. This ratio, for which 1 to 1 is often used as a norm, measures liquidity, or the ability of the business readily to liquidate all current demands on it. It serves indirectly as a guide to indicate when commitments in inventories and receivables are excessive. Other measures serving similar purposes are the ratios of inventories or of receivables to total current assets.

Other ratios may be employed to advantage, including the ratios of working capital to sales, inventory to sales, and receivables to sales, but it is necessary to bear in mind that many ratios of great value as tools for internal financial control may have little practical significance to the investor. One useful calculation based on working capital is the *net working capital per share* of stock (or per bond), indicating a "liquidating value" that offers reassurance when earnings are poor, even though actual liquidation may be extremely unlikely. For Goodyear, the net working capital of $230,543,000 in 1947 covered debt and minority interests 2.0 times, the excess amounting to $193 per share of preferred stock.

To give this concept of liquidating value and the current ratio and the quick ratio meaning, the analyst must consider the nature of the current assets and current liabilities as well as their amounts. How liquid are the current assets, and how conservatively valued? Are the current liabilities routine trade items and accruals, or are they demand bank loans? Contrary to some impressions, bank loans are not necessarily a stigma of weakness, but their presence in any significant amount on a balance sheet requires attention.

Examination of current assets is mainly pointed toward forming an opinion of the speed with which they could be converted into cash and of their probable value were such liquidation forced. The rigor with which this examination needs to be conducted naturally varies with the margin of such assets reported beyond minimum requirements.

In checking current assets, cash is valued as reported, and marketable securities are valued at cost or market, whichever is less, except under unusual circumstances. If marketable securities form a large item, knowledge of their nature and the basis of their valuation is, of course, essential. Numerous examples have been seen of blocks of so-called marketable securities being carried among current assets at a cost value greatly in excess of that which could be realized on the open market. The Aluminum Company of America in its balance sheet for December 31, 1933, carried as a current asset a block of Niagara Hudson Power common stock valued at its cost of $20,699,000 although it was later apparent that the market value had not been in excess of $5,500,000. In the 1934 report, this stock was transferred to a noncurrent investment account. The Allied Chemical and Dye Corporation, in its balance sheet for December 31, 1932, carried as a current asset a $92,404,000 item of marketable securities, later revealed to include blocks of the company's own preferred and common stock as well as unmarketably large holdings of certain other common stocks worth at market substantially less than the stated value. In 1933, the bulk of this item was transferred to noncurrent accounts, and a $40,000,000 increase in reserves for "general contingencies" appropriated in 1931 was shown separately as a reserve against losses on investments.

The problems raised in connection with receivables depend, of course, on the degree to which the company finds it necessary to finance its customers. Farm equipment companies, for example, typically carry large accounts and notes receivable, and many other companies provide large instalment credit. As of January 31, 1948, 92 per cent of Montgomery Ward's receivables were stated to be instalment accounts. The proportion of working funds tied up in receivables, the type of risks represented, the reserves carried against them, the annual rate of turnover, and the degree to which receivables may be discounted with financing companies if necessary are vital pieces of information. It will be noted that the Goodyear receivable item is after a substantial reserve for bad debts, and that it does not bulk large in proportion to total current assets. Even gross receivables at the year-end amounted to only 10.6 per cent of 1947 net sales of $670,772,000, indicating a turnover of receivables every 39 days. It is also important to differentiate between customers' receivables and accounts receivable from affiliated companies or from officers and employees. The last-named items are often of dubious value and at best are rarely current.

The most uncertain of major current assets ordinarily is the inventory. It is also usually the largest current item Where an arbitrary liquidating value of perhaps two-thirds may generally be accorded to customers' receivables, however, inventory would likely be given a value of no more than one-half. Instead of a claim for cash, it represents merchandise which must be sold. To the degree that it is specialized in nature, possessing a limited market, its liquidating value is reduced.

It is essential to know both the type of inventory owned (i.e., whether it consists of raw materials, goods in process, finished products, or merely supplies) and the basis upon which it has been valued. Whether items moving out of inventory are withdrawn on a first-in first-out basis or last-in first-out ("lifo") basis may be of great importance in a period of sharp change in commodity prices. With a company such as Goodyear, carrying a large supply of a raw material that is volatile in price, inventory values are particularly uncertain. Goodyear's inventories (not subdivided, incidentally, in reports to stockholders) are carried at cost or market, whichever is lower, with the raw material content of finished products periodically adjusted in the same manner as unprocessed raw materials, and substantial changes in valuation occur from year to year. In such cases, where inventory values fluctuate sharply it is especially important to note the extent of inventory speculation being undertaken, as reflected in the size of the inventory relative to apparent normal requirements. Ratios showing the percentage of inventory to net working capital or to total current assets and the ratio of inventory to sales are useful in this respect.

Among numerous lesser questions arising in consideration of inventories, there is the problem of adequate methods of auditing control in a large corporation, failure of which in the case of McKesson and Robbins, as we have noted, resulted in receivership. There is also the question of whether goods *on order* should not be considered in addition to goods on hand, in the event that orders are large.

With respect to current assets as a whole, there will frequently be encountered a troublesome problem in the valuation of working capital held in foreign countries, where it may be under varying degrees of restriction and is subject to fluctuating exchange rates. Because of exchange restrictions which prevented full transfer of profits in 1946 and 1947, Goodyear set aside $12,500,000 as a reserve "for possible loss on foreign investments," and to be on the conservative side we have deducted this reserve from current assets. The company reported to the SEC that, at the end of 1947, $39,421,000 of net working capital, or 16 per cent of its total, was held abroad. Goodyear has followed the practice of valuing such foreign assets at the prevailing rate of exchange on the date of the report.

Examination of stated current liabilities proceeds with the aim, first, of determining their nature and, second, of assuring that their statement is complete. It is desirable to know the extent to which they consist of trade payables, accrued taxes and wages, dividends declared, and similar items and the extent to which they represent short-term borrowing. It is always necessary to examine other items on the balance sheet and footnotes covering contingent liabilities in order that a full statement of near-term obligations be made.

Funded debt may be maturing at an early date, either in its normal course or owing to an event of default under the terms of the indenture. Usually, any obligation due within the subsequent year is included as current. Sinking fund payments as well as maturities may at times constitute a significant drain on working capital. The analyst is, of course, concerned particularly in the event that a sizable maturity even some distance in the future appears to threaten a serious problem of refinancing.

With some companies items such as reserves for taxes which are obviously current liabilities are separated from them on the balance sheet and must be rearranged by the analyst. Judgment must also be exercised with respect to the true nature of reserves such as the $12,500,000 reserve for foreign losses which we elected to deduct from Goodyear's current assets. Among undisclosed near-term liabilities of importance in some instances might be liability for payment for inventory on order but not yet received. Contingent liabilities, which may or may not be covered by a contingent reserve, may include possible losses on lawsuits relating to taxes, patents, and claims for damages, liability on receivables rediscounted, and guaranties of various sorts.

Apart from both current items and fixed items on the balance sheet there lies the no-man's-land of deferred debits and credits. Usually the analyst may conveniently disregard such items as unimportant, particularly the phantom "deferred expense" items of discount on funded debt and on capital stock. However, true prepayments of importance are sometimes included, such as substantial stripping expenditures incurred in preparing land for mining. All such items must be treated individually and should be compared from year to year as a possible source of understatement or overstatement of current earnings. In the case of Goodyear, the $1,296,000 item of "deferred charges to future operations" is insignificant enough to disregard.

Fixed Assets. The principal assets other than current normally are *fixed assets* (land, buildings, machinery, and equipment, usually referred to as *plant* or *property*). Unlike working capital, which is examined by the analyst primarily for its indication of financial strength and only secondarily as an element in the asset value of the enterprise, fixed assets are studied mainly on the latter basis. If valued conservatively, they represent tangible protection for debt and tangible value for the ownership interest held by stockholders.

Whether they are more important elements in value than are current assets will depend both on the individual enterprise and on the nature of the industry in which it is engaged. The typical railroad, for example, possesses huge fixed assets and relatively insignificant working capital, whereas numerous retail merchandising companies, even large chains, are able to operate in leased premises with virtually no fixed assets. In the case of Goodyear, net property in 1947 was reported at $111,536,000 compared with net working capital of $230,543,000.

We have commented before on the elusive nature of "value" in general and the dangers in excessive reliance by the investor on reported "book value" in particular. This warning applies most strongly with respect to fixed assets. The book value of fixed assets as a rule represents their cost to the present owners, less an allowance accumulated for *estimated* wear and tear, obsolescence, and depletion of natural resources, usually calculated on a basis expected to write off the cost of the property during its useful life. The resultant *net property* is an accounting concept and does not pretend to be an accurate representation of present value, though few corporations had troubled to point this out in their reports until recent years, when the tremendous increase in replacement costs began to make the inadequacies of traditional depreciation practice painfully apparent. Kennecott Copper Corporation, for one, has for many years stated in a footnote to its balance sheet, "The accounting basis used for the mines and for other properties and investments, as reflected in the Consolidated Balance Sheet, is not intended as a representation of actual present values or prospective future values thereof."

The reasons why book figures for fixed assets can be used only as the roughest sort of indicators of value by the investor are numerous, even when completely honest intentions in their portrayal may be assumed. For one thing, the costs represented are frequently not cash costs but reflections of the value of stock issued for assets acquired (and in some cases the *market* value, at that). For another, truly exact calculation of depreciation and related charges is a manifest impossibility until the property in question is finally discarded or sold. There is also the problem of properties bought in periods when the general price level was materially different from the present. Most important, however, is the fact that neither cost value nor present replacement value is by any means necessarily proportionate to the earning power, which is the foundation of value from the standpoint of the investor.

Frequently, the inadequacy of depreciated historical cost as a basis of valuation is recognized by managements through drastic "write-ups" or "write-downs" in book assets. Needless to say, the basis of such reappraisal and the motives behind it require careful scrutiny by the analyst. The taking in of acquired properties at fictitious values and the writing up of other properties on the basis of an increased cost of replacement or of demonstrated earning power have been much abused practices. In the mining industry, it is accepted practice to establish on the books a value for mining lands which is largely "discovery value," often far in excess of the actual cost of discovery and acquisition. A striking example, the details of which were more frankly supplied to stockholders than has always been customary, is that of the Climax Molybdenum Company, whose fixed assets were valued as follows (in round figures) on December 31, 1947:

FIXED ASSETS:		
Mine Properties at Climax, Colo., at cost	$ 952,000	
Less Accumulated Depletion	438,000	$ 514,000
Land at Detroit, Mich., and Langeloth, Pa., at cost		63,000
Buildings, Machinery, and Equipment at cost	$ 8,465,000	
Less Accumulated Depreciation	5,549,000	2,916,000
TOTAL FIXED ASSETS		$ 3,493,000
DISCOVERED INCREMENT		
Discovered Increment at Appraised Value	$74,131,000	
Less Reserve for Depletion .	32,968,000	41,163,000
TOTAL FIXED ASSETS, INCLUDING DISCOVERED INCREMENT		$44,656,000

In a footnote it was explained that "The Discovered Increment of the mine was increased from $3,692,389.89 to $74,131,250.00 in accordance with a survey made as of January 1, 1935, and approved by stockholders. In fixing this revaluation, the Board of Directors set forth 'that the same is subject to revision when and as circumstances in the future may render advisable.'"

Drastic write-downs in property accounts were the rule during the 1930's, mainly in recognition of actual shrinkages in value which had occurred. To some extent, however, there was probably also a desire to make a better earnings record possible through cutting down annual depreciation charges. The Commercial Solvents Corporation, for example, wrote its entire fixed property account down to $1 as of December 31, 1930, by a charge against earned surplus, and only assets acquired since December 31, 1932, were valued in the usual manner. The United States Industrial Alcohol Company followed a similar course, reducing its net property to $1 as of January 1, 1933, through transfer of $19,301,000 from surplus to property reserves, and thereafter with respect to these assets substituting for depreciation charges an annual charge to a reserve for renewals and replacements.[3] This concern, however, in 1941 shifted back to reporting fixed asset values on the basis of depreciated cost.

Disregarding the practical difficulties and the expense involved, we might conceive of a company which revalued its fixed assets each year on an appraisal basis. In attempting this, however, the company would first have to decide whether to appraise the assets at what they might bring if offered for sale, at the cost of replacing them, or at the capitalized value of the earning power they represent when employed in the present business.

Current assets are in theory valued in a balance sheet at no more than what they should bring on liquidation, and the analyst may after more or less limited investigation assign them a trustworthy minimum value. The value of fixed assets on liquidation, however, is far less predictable, and the range between "scrap value" and "going concern value" is likely to be far greater.

When plant and equipment are inadequately depreciated, obsolete, or of a specialized nature not easily adaptable to alternative uses, their scrap value may be wholly negligible in proportion to book value. This possibility is increased by the fact that liquidation of a business of any importance is rarely undertaken except under conditions of depression in the industry. On the other hand, it is also possible that a property account, if it has been written down drastically or is favored with special assets such as fortunately situated real estate holdings, might on liquidation show a substantial profit over book value.

Similarly, great disparity may exist between book value and the value based on earning power which may reasonably be attributed to property operated as part of a going concern. For the investor, earning power is the basic source of value. It must be recognized as a practical matter, even usually in the case of the first mortgage bondholder, that liquidation of the business is an unlikely alternative. There have been too many instances of securities selling for extended periods materially below prices which could beyond question have been realized if liquidation were undertaken.

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[3] In this company's annual report for 1932 the president stated, ". . . your Directors find great difficulty in establishing a conservative basis on which the fixed assets of the company and its subsidiaries should be carried. They have therefore concluded to recommend, with the approval of Messrs. Haskins and Sells from an accounting standpoint, that steps be taken to increase the property reserves in order to reduce the book value of all fixed assets of the company and subsidiaries to an arbitrary and nominal amount of $1.00. . . . In view of the impossibility of arriving at even an approximate valuation of plants under existing conditions, it is felt that an understatement of such values is the conservative course."

Despite the need for subordinating book value to earning power in practical valuation of an enterprise, fixed property remains a tangible and usually substantial asset. Earning power based on substantial fixed property is ordinarily a more reliable and easily measured foundation for value than is earning power based on managerial skill or on goodwill without significant real property. Moreover, from the standpoint of excess profits taxation or of the limitation of profits by regulatory bodies, an enterprise with an important real property account possesses some extra assurance that a right to certain minimum earnings may be recognized.

So far as the mortgage bondholder is concerned, of course, it is often possible to calculate a minimum value for the fixed assets subject to his lien which will afford him protection even if it be assumed that full enforcement of his rights will be forestalled by junior interests.

In order to judge the soundness of the book valuation of fixed assets, though without any futile expectation of obtaining really accurate knowledge, the analyst needs first to note the type of property owned and the basis of valuation used, as revealed in the company's reports or correspondence or through information filed with the Securities and Exchange Commission, and then to check this valuation roughly by certain external standards. Personal inspection of properties is sometimes attempted by the analyst, but it is not of much help in valuation except when the analyst possesses appropriate training and the properties are not too extensive.

The analyst needs to learn the degree to which the property is specialized or general in nature, the proportion which consists of land, buildings, or machinery and equipment, how recently it was bought or constructed, what actual cash was put into it, whether any important portion is an intangible such as capitalized development expense, and similar facts, to the extent they are available without undue effort or expense. He also needs to know where the properties are located, because of local conditions with respect to taxes, labor, transportation facilities, distance from markets, and so forth. It is important to note the degree to which foreign assets are included, with the special conditions which may exist with respect to them. For Goodyear, the 1947 annual report explained that foreign properties were valued at $47,567,000 net. This was after deduction of $16,328,000 of minority stockholders' equity which applied to foreign subsidiaries. It was also after elimination of a substantial investment in the Netherlands Indies. Goodyear's published report, incidentally, may be criticized for failing to break down its huge property account into land, buildings, equipment, and other major subdivisions.

Some idea of the relative soundness of a company's valuation of its plant may be obtained from comparison of its depreciation policy with the policies followed by other like concerns. By "depreciation policy," of course, we include policies with respect not only to depreciation and obsolescence but also concerning similar deductions for depletion and for amortization of capitalized development expense. A customary comparative ratio is that of the annual depreciation charge to net plant. Naturally, this comparison must take into consideration variations in type of plant, even within the same industry. Many companies make public the actual rates of depreciation they charge on each class of property.

A better understanding of the changes taking place in property accounts may often be had through preparation of a "statement of sources and application of funds" for each year in question, similar to that of the United States Steel Corporation reproduced in the next chapter. Though some companies publish statements of this type, and it is always possible to construct a summary statement, usually the analyst, in order to make an adequate presentation, needs to avail himself of the information supplied in reports to the Securities and Exchange Commission, which includes breakdowns of changes in property accounts and in depreciation reserves. For example, the reported expansion in the Goodyear gross property account during 1947 of $30,177,000 is revealed through reference to this source to have involved the addition of properties costing $35,391,000, offset in part by retirements or sales amounting to $5,214,000. Similarly, the increase in the depreciation reserve of $9,333,000 is seen to have been the net result of an addition to the reserve of $13,617,000 from income, less retirements and renewals deducted from the reserve in the amount of $4,284,000. Expenditures for maintenance and repairs during the year amounted to $18,933,000.

In some industries, notably the railroad industry, depreciation and obsolescence allowances have been confined to limited classes of property, and maintenance expenditures have been emphasized on the theory that a property might be kept good-as-new through proper maintenance. Although this view has not proved wholly satisfactory, the analyst may as well employ maintenance ratios as depreciation ratios, recognizing the significant difference that, whereas maintenance is a cash expense, depreciation is only a book charge designed to assure that funds will be ready for eventual replacement. When the depreciation charge is too heavy, instead of draining away liquid funds it tends to build them up.

In industries such as mining or oil producing, where depletion charges are heavy, various ratios are employed for purposes of comparison, including the ratio of depletion to the appropriate property, depletion to gross sales, and depletion per unit of metal mined or per barrel of oil produced. In an extractive industry, proper allowance for depletion is, of course, of great importance, but it is also extremely difficult, for it is not ordinarily feasible to estimate with any accuracy what is going to be found underground, and valuation is equally dependent on the experience that is anticipated with costs of extraction. Numerous metal-mining companies avoid estimates of total reserves and follow the practice of developing ore requirements for only a few years ahead, although they know that considerably larger quantities of ore will eventually be recovered from their properties. Many companies, of which Kennecott Copper is an important example, do not make public any allowance for depletion, although they make such a charge for income tax purposes and they may notify stockholders of the proportion of dividends paid which should be treated as a nontaxable capital distribution. Granting the impossibility of making accurate depletion allowances in most cases, and recognizing that the book values being written off may be purely arbitrary, we still do not see any sound excuse for screening estimates of depletion from stockholders.

As a matter of fact, careful study of income tax allowances, including the subsequent adjustments often made through the surplus account, will in many instances give the analyst a helpful check on the propriety of reported depreciation and depletion charges, for the federal Treasury is scrutinizing such charges with increasing care and will frequently not permit for tax purposes charges so large as those which are reported to stockholders. On the other hand, at times regulatory bodies have attempted to force the adoption of heavier rates of depreciation, as the Securities and Exchange Commission has done with certain public utility companies.

In the railroad and public utility industries, a check on the valuation of a company's assets may be obtained from valuation proceedings which are instituted from time to time by state or federal regulatory commissions. Since the valuations thus obtained establish the base for the earnings theoretically permitted such companies, they are of obvious importance. Appraisals of asset values made by various private agencies or individual specialists are also generally available in major industries, though surprising variations often exist between the estimates offered. Prospectuses and registration statements for securities in cases where fixed assets are important often contain independent appraisal of values.

Frequently it is possible to place a value on a plant on the basis of its annual capacity in terms of production. A cement mill, for example, may be considered to be worth so much per barrel of annual capacity. Similarly, an electric utility property may be valued roughly at a given number of times its annual gross, with due allowance for the proportion of production that is hydroelectric and the proportion that is steam-generated.

In so far as the investor is concerned, the final check on the reality of values assigned fixed assets normally is earning power. If average earnings capitalized at a rate appropriate to the hazards of the industry are equal to or greater than the total book value of assets, the valuation is usually considered sound until proved otherwise. When earning power is under consideration, however, the share produced by book assets and the share produced by the managerial organization are inseparable, except to some degree when comparison is possible with similar companies enjoying a different measure of success. Furthermore, we still have the problem of the business with no earnings at all on the average but with an undoubted asset value were liquidation undertaken.

Other Assets. Of the other types of assets which may bulk large on a balance sheet *investments* and *intangibles* are the most important. The miscellaneous assets that appear are ordinarily small enough to be ignored, though occasionally a special investigation will be necessary to determine appropriate treatment.

An account labeled "investments and advances" may harbor almost anything. Unless a specific statement of what the account comprises is supplied the analyst is justified in a most critical appraisal. Usually carried at cost, this account typically has little relation to market value, or it may contain only unmarketable securities in subsidiary companies. It may be heavily weighted with questionable advances to officers and employees, or it may actually be evidence of a continuing liability to advance funds to a subsidiary company in the development stage. Some indication of its value will usually be afforded if dividends and interest received from this source are shown separately in the income account, but this indication may prove misleading.

The chief intangibles are goodwill, trademarks, patents, and capitalized development expenses of various types. Practices vary in the treatment of development expenses, but it is generally recognized as conservative practice to carry goodwill, trademarks, and patents at a nominal value, usually $1, despite the often very substantial value they would have were they offered for sale. Though they may actually be more valuable than other assets taken together, there is seldom any satisfactory basis for estimating this value, other than that afforded by the income account, and for this reason the analyst will usually do best to eliminate them from his balance sheet analysis.

Capital Structure. Analysis of the "capital structure" of an enterprise sets forth the nature and extent of the long-term claims against its assets. What proportion of capital is represented by funded debt, by preferred stock, by common stock? For the numerous industrial corporations whose sole capitalization consists of one class of common stock such analysis is of no importance, but more complicated capital structures (such as that of Goodyear) are common enough, especially in the public utility and railroad fields. Where several classes of securities exist, the analyst's approach will, of course, be conditioned according to the class of security in which he is primarily interested.

Determination of the proportion of invested capital represented by each class of security has a dual purpose. On the one hand, through comparison of the size of fixed obligations with the assets on which they have prior claim, we are able to calculate their *asset protection,* a measure of relative safety which though subordinate to *earnings protection* is still significant. The assets, if any, applicable to junior securities serve as a cushion against loss for the senior obligations. Among ratios commonly employed to measure asset protection of debt are the ratios of net working capital to funded debt and of funded debt to net fixed assets or to total net assets. The ratio of debt to net worth or to total invested capital may be used to indicate the junior "cushion."

Knowledge of the amount of senior obligations is equally important to the owner of junior securities, who benefits or suffers, as the case may be, from the "leverage" afforded by employment of senior capital. A capital structure which through inclusion of large fixed senior obligations provides a considerable degree of this leverage to magnify profits and losses for equity holders is said to be "pyramided." In the condensed Goodyear statement we have presented, the degree of pyramid was worked out in terms of dollars per share of common stock. As of December 31, 1947, the capital structure shown was:

	DOLLARS PER SHARE OF COMMON STOCK	PER CENT OF TOTAL
Debt and minority interests (at par *).	$ 56	32
Preferred Stock (at $100 per share)....	29	17
Common Stock (book value)	88	51
TOTAL INVESTED CAPITAL	$173	100

* Except for minority interests, which are carried at book value.

Thus, funded debt was protected by at least a 68 per cent junior equity. The protection was probably greater, since it appeared that some of the minority interests would in the final analysis rank junior to the funded debt. Conversely, the pyramid ahead of the common stock amounted to 49 per cent of invested capital.

Frequently, the "market valuations" of common and preferred stocks, or the market prices times the shares outstanding, are used to indicate the equity protecting funded debt. Such a calculation is of value for reflecting the present opinion of investors on the extent of protection afforded, particularly when comparison is being made between the securities of several similar companies, although it is open to criticism for the degree to which it puts the cart before the horse and makes market price the determinant of value.

The significance of the extent of asset protection and the degree of leverage existing, of course, cannot be separated from the nature of the industry being studied; that is, a pyramiding of debt considered normal in the electric utility industry would be wholly unsound in the cotton textile industry. Moreover, the composition of the present capital structure must be considered in light of the *trends* of expansion or contraction in different classes of securities that may have been in evidence, and in view of what future requirements for new capital are anticipated. A significant aspect of the Goodyear summary is the manner in which senior obligations were reduced and the book value of common stock increased over a period of years, so that a pyramid of 82 per cent in 1932 was reduced to 49 per cent in 1947.

There is rarely any real problem involved in obtaining adequate information with regard to the composition of the capital structure. The amounts of the various issues of securities outstanding and the contractual details which determine their respective seniorities and privileges are not a matter of opinion, but of definite fact which the issuer ordinarily is constrained to provide.

This is not to imply, nevertheless, that a critical attitude should not be maintained. It is possible, for example, that important hidden fixed charges may exist in the form of long-term leases on property, as many chain store organizations found to their sorrow in the 1930's, though it had been customary to overlook such leases in published reports. This has been a factor of growing importance in recent years as so many industrial and mercantile concerns have sold factories or store buildings to insurance companies, committing themselves at the same time to use the premises on very long leases. A common, but on the whole minor, source of confusion has been the practice of repurchasing the company's own bonds or shares of stock and then holding them at cost as an "investment" instead of deducting them from the appropriate capital account. Among numerous routine details which require checking in an analysis of the capital structure are maturity dates of funded debt, call prices, sinking fund provisions, conversion privileges, indenture restrictions that may prevent the payment of dividends, and similar matters. Knowledge of options or warrants that may be outstanding for the purchase of stock from the company at special prices is obviously also important to stockholders.

The true position in the capital structure of subsidiary company securities outstanding in the hands of the public is dependent on the individual circumstances but is often in large part opinion. When there is doubt, however, minority interests, from the standpoint of owners of parent company securities, are best treated as senior to all but mortgage debt. Some question may arise about the value at which minority common stock interests are carried, but generally it is possible in the event that the item is important to check roughly the value of the subsidiary or at least to gage its importance from the standpoint of earnings through the size of the minority share in income which has been deducted from the income account.

In stating the capital value of an issue of preferred stock, it is necessary to look into the provisions of the particular issue rather than to be guided by the value shown on the balance sheet. The latter sum may have been written down in order to transfer funds to surplus, or the "par value" at which it has been carried may be most unreal; that is, a preferred stock bearing a $6 cumulative dividend may be carried at $25 per share, although in the event of liquidation it would be entitled to $100 and its call price is $110. The common practice in analysis is to adopt the liquidation priority, in this case $100, as a basis for stating value. In the event that preferred dividends are in arrears, the sum in question is added by the analyst as an obligation senior to the common stock, though it usually appears on the published balance sheet as a footnote, if at all.

Since preferred stocks usually possess no maturity dates and many are noncallable, it may be argued that their stated value for purposes of analysis should be their dividend rate capitalized at an appropriate standard rate of interest. It is not believed, however, that such a practice has much to recommend it, except when the capital structures of a group of closely similar companies are being compared.

Surplus and Reserves. So far, it will be noted, we have considered the invested capital of the stockholder to be the residue of net worth remaining after all liabilities and senior capital have been deducted from total assets. Though in effect it may not differ greatly from the simpler traditional method of adding together the stated value of common stock and of surplus, this approach is more realistic in that it relates the value obtained directly to the assets.

Surplus, both paid-in and earned, constitutes a sort of dark room convenient for the management and essential for lawyers and accountants but not always of much use to the analyst. Existence of a sizable earned surplus is an indication of substantial book value for the common stock and of a healthy earning power in the past, yet the place to examine book value is in the asset accounts, and the place to study past earning power is in past income accounts. The analyst scrutinizes the surplus account mainly to note substantial year-to-year charges or credits which might more properly have been put through the income account.

Exceptions to this rule are principally in those industries subject to public regulation, where, as we have remarked, accounting is relatively standardized. Also, it may be that legal requirements at times make a minimum earned surplus necessary before dividend payments or other actions may be undertaken.

During the 1920's a company was judged heavily by its surplus account, on the theory that in this account was reflected the strengthening and expansion of the business which had resulted from the retention and reinvestment of profits. When a company paid a stock dividend, simply transferring part of its surplus account to its capital stock account, it was said to "cut a melon" for the stockholders. Surplus came to be viewed as a reserve of strength that could be tapped in unfavorable periods. The manner in which it so frequently vanished almost overnight through write-downs of assets during the succeeding decade came as a great disillusionment.

Reserve accounts fall into three general classes: liabilities, deductions from assets, and provisions for contingencies. Those reserves falling in the first two classes, such as "reserve for taxes" (current liability), "reserve for bad debts" or "reserve for losses on current assets held abroad" (deductions from current assets), and "reserve for depreciation" (deduction from property), are transferred by the analyst as indicated. Unfortunately, it is frequently impossible to tell the real nature of a reserve from its title, even though some explanation of the nature of the larger items is ordinarily given when they are appropriated. "Reserve for commitments," for example, may or may not mean an anticipated loss. "Reserve for profit-sharing plan" may or may not mean a fixed obligation. In the case of Goodyear, its 1947 provision of $7,227,000 as a reserve "for sundry liabilities, etc." is not actually illuminated greatly even by the Securities and Exchange Commission data, which show that the reserve consists of provisions for foreign exchange, profit-sharing plan, workmen's compensation, commitments, and miscellaneous.

Those reserves not classified as liabilities or as deductions from assets are usually placed in the same category as surplus. This is certainly desirable if the provision is for general contingencies, with no specific loss or liability in mind. If the reserve is "allocated," however, to protect against a specific hazard—litigation, commodity price declines, losses under self-insurance, and so forth—judgment will have to be exercised as to the importance and definiteness of the hazard.

SUPPLEMENTARY READINGS

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PROJECTS

1. Prepare a condensed balance sheet of an important industrial corporation, including comparative figures for a five-year period. Comment on points of strength and weakness discovered, after you have examined pertinent ratios and other evidence of significance in the determination of trends.

2. Select a company with bonds and preferred stock in its capital structure. Prepare a brief analysis of the capital structure, noting the extent of the pyramid, both on the basis of book value and on market valuation.

CHAPTER 20 The Income Account

The Income Account a Dynamic Statement. The second indispensable financial exhibit is the income account, or statement of profit and loss. This statement is dynamic in the sense that it reflects actual operations instead of merely the financial condition as of a given moment. It helps to answer the paramount question of the ability of the enterprise to earn an income for the investor, and it sheds light on operating problems as well as on the changes occurring in balance sheets.

With many enterprises, unfortunately, the published income account is a great deal less illuminating than it should be. Much too often, it is lacking in adequate detail, sometimes with the unconvincing explanation that it is necessary to screen essential operating information from competitors. Steady progress is being made, however, in improving the general standard of such reporting, in part through the activities of the Securities and Exchange Commission in obtaining and publishing essential data on the volume of sales, cost of sales, nonoperating income, and similar items formerly held secret. It is increasingly being recognized that competitors are able to discover such data for themselves and that the screening is effective principally against stockholders.

Even when considerable detail is available, interpretation of the income account is made difficult because of the wide variations that exist among accepted methods of handling some types of income and expense. The income account is in some ways more subject to manipulation than is the balance sheet, and this manipulation is difficult to detect. Many expenditures, for example, may equally well be charged off in the current year against income as expenses or "capitalized" and added to the property account as increases in the value of assets. Similarly, nonrecurring profits and losses, often of large size, may be included in the income statement for the current year, or they may be omitted from this statement and carried directly to surplus or reserve accounts. The size of reserves set up is also to an important extent a matter of judgment. In subsequent pages, we shall examine in more detail some of these possible variations.

The management normally has wide latitude in making such accounting decisions, even in industries subject to regulation by public agencies. For this reason, auditors are expected to check the consistency with which accounting policies are followed. The usual accountants' certificate states that the financial exhibits have been prepared "in accordance with accepted principles of accounting consistently followed by the company." Although this should give the analyst reason to believe that results are comparable with those of the same company for former years, he cannot dispense with a general check on the actual practices followed with respect to the more important items. He must also recognize that significant unrevealed differences in accounting practices often exist between companies.

Owing to the inevitable fluctuations characteristic of earnings, analysis of the income account cannot rest solely on the results of any single year; it requires emphasis on study and comparison of data over a longer period. How long this period should be depends on the rapidity with which the nature of the enterprise's operations has been changing and on the possibility of obtaining properly comparable accounting data. If at all feasible, the period should be long enough to include both years of considerable prosperity and years of severe depression.

Even for a relatively short period of years it will often be found necessary to make substantial adjustments in reported statements if they are to be comparable. Not only may the methods of handling important income and expense items have been altered, but also there may have been substantial changes in the capital structure affecting the relative positions of the various classes of security holders. This is particularly true for merged companies or for companies having complicated capital set-ups with numerous subsidiaries.

Income accounts, as financial summaries of operations, naturally vary greatly according to the industry concerned. The analyst must recognize this fact and be prepared to analyze each in a fashion that will emphasize the items and ratios most essential in the particular instance. Especially is this true in consideration of interim earnings statements, in which the seasonal characteristics of the industry may be of overwhelming importance, as for department stores, fertilizer companies, fruit-canning companies, and other businesses in which the operations of a single quarter dominate the profit showing for the year and a satisfactory allocation of costs to inactive quarters is difficult. Some seasonal industries follow the practice of reporting interim results only on the basis of "the twelve months ended" each month or each quarter, thus automatically smoothing out seasonal influences.

A similar problem is faced in another group of industries where annual reports may be said to be misleading because they cover too short a period.

Shipbuilding companies and large construction companies, for example, may find it extremely difficult to make reasonable estimates on an annual basis of the income and costs applicable to large contracts running perhaps for several years.

As an illustration of the process of restating income data for purposes of analysis we shall refer to the Chrysler Corporation published income account for the year 1939, reproduced herewith, and our adjusted comparative statement for the five years ending with 1939, presented on the following page. No such statement can be typical of more than a limited group of companies, but this relatively simple example will suffice to indicate a method of approach. Chrysler represents the important class of manufacturing companies of large size, great financial strength, and simple capital structure. It possesses also a high degree of concentration on a single type of product, so that ratio analysis of sales is facilitated.

CONSOLIDATED
PROFIT AND LOSS STATEMENT
CHRYSLER CORPORATION AND SUBSIDIARIES

Year ended December 31, 1939

Net sales		$549,806,327 03
Cost of sales		459,655,340 75
Gross Profit		$ 90,150,986 28
Interest, dividends and miscellaneous income		847,736.71
Total Income		$ 90,998,722.99
Administrative, engineering, selling, advertising, service and general expenses	$ 43,148,108 03	
Provision for profit-sharing and bonus plans, pursuant to stockholders' authorization dated April 16, 1929	2,470,786 21	45,618,894 24
Profit Before Taxes on Income		$ 45,379,828.75
Provision for federal, state and foreign income and excess-profits taxes		8,500,000 00
Net Profit		$ 36,879,828.75

Depreciation and amortization in the amount of $18,430,345.00 have been charged to cost of sales and expenses.

Income of the foreign subsidiaries, included in the foregoing statement, has been translated at the average rates of exchange prevailing during the year, and amounted to $2,266,749.75 after adjustment for translation of net assets (except fixed assets) at the close of the year to open market rates of exchange. Except for a relatively small amount in Belgium, all such profit was paid to the Corporation in dividends.

ADJUSTED CONSOLIDATED INCOME ACCOUNT OF CHRYSLER CORPORATION
(thousands of dollars, years ended December 31)

	1939	1938	1937	1936	1935
NET SALES	549,806	413,251	769,808	667,138	516,830
Cost of goods sold	459,655	352,154	661,855	546,038	430,992
Admin., selling and gen. expenses	44,396	39,893	45,764	44,934	39,662
Management bonus *	1,220	538	2,172	2,724	1,229
Taxes other than income †	(22,350)	(17,362)	(27,917)	(22,113)	(16,123)
Maintenance and repairs †	(10,751)	(8,742)	(13,075)	(12,403)	(7,096)
Amortization of dies, tools, etc. †	(12,027)	(7,403)	(9,499)	(8,389)	(10,668)
Depreciation of plant and equip. †	(6,403)	(6,471)	(6,142)	(5,822)	(6,319)
OPERATING PROFIT AFTER RESERVES ‡	44,535	20,665	60,017	73,443	44,948
Plus: Net charge for oper. res.	d (*265*)	d (*4,310*)	(7,060)	(425)	(4,666)
ADJUSTED NET OPERATING PROFIT	(44,270)	(16,355)	(67,077)	(73,868)	(49,614)
% costs to sales	*83.6*	*85.2*	*86.0*	*81.9*	*83.4*
% expenses (incl. bonus) to sales	*8.3*	*9.8*	*6.2*	*7.1*	*7.9*
% taxes to sales	*4.1*	*4.2*	*3.6*	*3.3*	*3.1*
% maintenance to sales	*2.0*	*2.1*	*1.7*	*1.9*	*1.4*
% deprec. and amort. to sales	*3.4*	*3.4*	*2.0*	*2.1*	*3.3*
% amortization to sales	*2.2*	*1.8*	*1.2*	*1.3*	*2.1*
% deprec. and amort. to net plant	*27.2*	*19.8*	*23.6*	*23.6*	*31.6*
% depreciation to net plant	*9.5*	*9.3*	*9.3*	*9.7*	*11.8*
% MARGIN OF PROFIT (as adjusted)	*8.1*	*4.0*	*8.7*	*11.1*	*9.6*
Other income (several sources)	848	1,835	3,015	2,758	1,366
Income taxes	8,500	3,700	11,000	12,800	8,931
Undistributed profits tax			1,300	1,200	
Interest charges §	3	1	2	90	2,406
NET INCOME‖	36,880	18,798	50,729	62,111	34,976
Cash dividends paid ¶	21,756	8,702	43,521	52,191	8,665
Balance to surplus	15,124	10,096	7,208	9,920	26,311
COMMON SHARES OUTSTANDING (000's of shares, end of year)	4,351	4,351	4,351	4,358	4,332
Earned per share common	*$8.47*	*$4.32*	*$11.66*	*$14.25*	*$8.07*
Paid per share common	*$5.00*	*$2.00*	*$10.00*	*$12.00*	*$2.00*
*% earned on invested cap.***	*21.5*	*12.0*	*33.8*	*45.8*	*27.6*
% of earnings distributed	*59.0*	*46.3*	*85.8*	*84.1*	*24.8*
SALES IN UNITS (000's)	779	571	1,159	1,066	844
$ sales per unit sold ††	*$706*	*$723*	*$665*	*$625*	*$613*
Operating profit per unit ††	*$57*	*$29*	*$58*	*$69*	*$59*

The statement to be adjusted was in this case a "skeleton" statement which required the addition of information from the reports filed with the Securities and Exchange Commission and from reserve accounts in order to round it out. In some instances where published reports are in more detail, the analyst may be forced to follow an opposite course, weeding out and consolidating minor items so that interpretation of the more important items is made easier. Examination of surplus and reserve accounts is necessary at all times in order that there may be noted on the adjusted statement any major debits or credits to these accounts which, as we have remarked, if handled differently might have had an important bearing on current operating results.

Supplementary Data. The additions and adjustments in the income accounts presented have been based on information of the type that would be available for any company with listed securities outstanding. Occasionally, of course, the analyst has access to special studies providing useful supplementary information. For Chrysler, such a study covering the years 1927–1937 is available in the *Report on Motor Vehicle Industry* published by the Federal Trade Commission in 1939.

This report not only outlines the history and certain managerial policies of Chrysler Corporation, but it also provides accounting data in greater detail than is to be had elsewhere. In particular, it separates costs and profits between motor vehicles, parts and accessories, and other products, and between the several lines of automobiles manufactured. Accountants for the Federal Trade Commission also examined accounting methods critically and reclassified many important charges and credits so that items handled directly through the income account by the corporation were put through earned surplus instead. We shall not discuss the merits of these adjustments, but the following table compares the Commission's revised

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d Deficit.

* Participation of Chrysler Management Trusts. Does not include all bonus payments 1939 provision for employees' bonus was $1,250,000

† From reports to Securities and Exchange Commission.

‡ After provisions for operating reserves, reserve for employees' bonus, and reserve for contingencies. The operating reserve is a contingent reserve for price adjustments, advertising, commitment losses, and so forth. It has been deducted to arrive at adjusted net operating profit because it appears to be predominantly a "surplus" reserve and to have been used for purposes of smoothing out fluctuations in earnings Reserve charges against income for employees' bonus and contingencies are less important and have been omitted, except in 1939, when employees' bonus reserve was not shown separately.

§ Including premium on debentures retired in 1935 If funded debt (parent company or subsidiary) were presently outstanding, there would be included a ratio of "times fixed charges earned " See later comment on "calculation of times charges earned" for explanation of deduction of taxes before interest charges

|| Share of minority interests, if any, in net income would be deducted just before this item

¶ Though customarily reported in the surplus account, dividends declared (both preferred and common) are best shown here as a deduction from income for the year applicable. If the dividends are not paid in cash, explanation is necessary.

** Including operating and contingency reserves.

†† Such figures are of value, of course, only when sales are heavily of one type of product. Federal Trade Commission figures for Chrysler's motor vehicle business alone show net dollar sales per car of $617, $582, and $575 respectively in 1937, 1936, and 1935, with net profit per car of $48, $70, and $53.

net income with that reported by Chrysler. Reference to the original report is recommended to the student.

Chrysler Corporation—Net Profit after Taxes

(thousands of dollars)

Year	As Reported by the Company	As Revised by the Federal Trade Commission
1927	19,485	22,175
1928	30,992	34,469
1929	21,902	26,288
1930	234	d *2,019*
1931	1,469	3,190
1932	d *11,254*	d *11,569*
1933	12,129	14,896
1934	9,535	9,871
1935	34,976	42,453
1936	62,111	69,151
1937	50,729	59,739

Variations Arising from Method of Consolidation. As with the balance sheet, it is necessary in analysis of the income account to ascertain at the start the degree to which statements of subsidiary and affiliated companies have been consolidated. Wide differences in reported incomes may depend on the practice followed.

Three principal methods of inclusion of earnings data for subsidiary concerns are found: (1) full consolidation, (2) inclusion of only the parent company's proportionate share in net incomes, and (3) inclusion of only actual dividends received. With each of these alternatives, of course, it may or may not be that separate statements for subsidiaries are also published.

The method most appropriate in a given instance is not always easily determined. Ordinarily, full consolidation of concerns in which a controlling interest is held may be viewed as desirable, but much depends on the individual case, particularly on the relative importance of the subsidiaries and the nature of minority interests. Operations of the businesses involved may differ enough so that consolidation of the figures actually would serve as an obstacle to their interpretation. Likewise, consolidated earnings may be misleading because actual transfer of subsidiary earnings to the parent company is effectively barred, as, for example, in the case of a foreign subsidiary subject to stringent exchange restrictions.

The practice of including only the parent company's equity in the net incomes of subsidiaries is misleading in two directions. On the one hand, this method fails completely to reflect sizable senior fixed charges which may exist, or significant operating trends. On the other hand, as we have noted, the equity reported may give no indication at all of dividend payments actually available to the parent company. In this respect, the reports to the Securities and Exchange Commission are helpful, for they separate parent company net income from consolidated net income and they show both the equity in earnings of unconsolidated subsidiaries and the dividends received from them. Thus, Chrysler Corporation's net direct income is revealed to have been over 99 per cent of consolidated net income in 1939, and items with respect to unconsolidated subsidiaries to have been negligible.

Companies that follow the practice of including subsidiary income only as received in dividends are at least reporting an actual cash item, but this method may be extremely misleading for the simple reason that such dividends may for long periods be paid at rates having little relation to current earnings. In the face of substantial earnings, no dividends at all may be declared, or, in the face of deficits, a strong subsidiary may declare large dividends from earned surplus. The important wholly owned plantation subsidiary of the United States Rubber Company was not consolidated before 1938. A dividend of only $100,000 was received from the plantation company in 1937, although plantation earnings were noted in the text of the report as $4,590,000. The reported income account, in consequence, included plantation earnings to the extent of only $0.07 per share of parent common stock, though they actually amounted to $2.99 per share and would thus have raised the reported net income from $2.21 per share to $5.13. Declaration of large dividends from surplus by unconsolidated subsidiaries has been a device often employed to bolster net income in years of poor earnings. Pacific Fruit Express is such a subsidiary which has contributed heavily in this fashion to the income of its owners, the Southern Pacific and Union Pacific railroads, and the Northwestern Improvement Company has been an important source of unearned income to the Northern Pacific.

The essential point for purposes of analysis is not which method of consolidation is followed, but how thorough an explanation of the position of both parent company and subsidiaries is available, so that the analyst may make appropriate adjustments. It has been impossible, for example, to analyze the position of the Baldwin Locomotive Works without separate treatment of its subsidiary, The Midvale Company, but separate statements have been readily available. Baldwin in recent years has followed the practice of mailing stockholders a copy of the Midvale annual report enclosed with its own report, and it has provided considerable supplementary detail as to the proportion of assets and earnings applicable to Midvale.

An interesting example of the value of detailed statements of subsidiaries is afforded by the Anaconda Copper Mining Company, whose major foreign producing subsidiaries, though nearly wholly owned, make separate statements available. The following rough comparison for the year 1937 of Anaconda's consolidated income account with the accounts of the three major foreign subsidiaries suggests a method of approach that is often revealing.

ANACONDA COPPER MINING COMPANY AND SUBSIDIARIES
Comparative Income Accounts, 1937
(in thousands of dollars, year ended December 31)

	(1) Anaconda (consolidated)	(2) Chile Copper	(3) Andes Copper	(4) Greene Cananea Copper	Indicated Domestic Operations of Anaconda*
GROSS REVENUE	233,917	46,550	14,818	5,744	166,805
Cost of sales	181,839	15,079	6,974	2,578	157,208
Depreciation	9,115	2,892	1,211	331	4,681
OPERATING INCOME	42,963	28,579	6,633	2,835	4,916
Margin of profit†	*18.4%*	*61.3%*	*44.7%*	*49.4%*	*2.9%*
Other income	2,552	255	419	4	1,874
Other deductions	1,996	..		.	1,996
Income taxes	8,576	5,718	1,381	460	1,017
Interest charges	3,210	737	215	..	2,258
NET INCOME†	31,732	22,379	5,456	2,379	1,518

* Column 1 less columns 2, 3, 4

† Before depletion.

Variations in Treatment of Expense Items. We have already commented on the variations that may exist in policies with respect to certain regular expense items whose determination and classification is to an important extent a matter of judgment. The major items of this kind are two: depreciation and related noncash charges, and cash expenditures which may be treated as additions to assets rather than as current expenses.

The question of charges to reserves for depreciation, depletion, and obsolescence, and for amortization of specific expenses has already been discussed in connection with the valuation of fixed assets. We have seen that determination of the extent to which these charges may be overstated or understated is in the final analysis a matter of opinion on the longevity and continued usefulness of specific assets, complicated by the possible effects of inflationary or deflationary price trends upon replacement costs.[1] Within a given industry, comparative ratios of such charges to gross income or to the valuation of the appropriate assets are helpful, but care must be taken to see that charges are comparable.

For example, Chrysler's average annual reported charge for "depreciation and amortization" for the years 1935–1939 amounted to 2.8 per cent of net sales and to 25.2 per cent of the year-end value of net plant, comparing with a reported charge for "depreciation" by General Motors Corporation averaging 3.3 per cent of net sales but only 11.2 per cent of net plant. The difference in the first ratio was no less striking than that in the second, for General Motors' net plant averaged more than twice as large relative to sales as did that of Chrysler. The apparently far heavier depreciation charges made by Chrysler were the subject of favorable comment in the press and in some financial services. In truth, however, as indicated by the figures inserted in our adjusted income based on reports to the Securities and Exchange Commission, the discrepancy here was due in large part to the fact that the Chrysler reports to stockholders lumped depreciation and amortization. The greater part of this annual charge in each year represented not depreciation of plant but amortization of investment in dies, tools, jigs, and fixtures peculiar to current models of cars, which were amortized generally on the basis of the life of the model, normally one year. General Motors made a similar annual charge to costs to amortize such tools but did not include this provision with depreciation in its report to stockholders.

A check on depreciation rates is often afforded by statement of the company as to the rates employed for different classes of property. Chrysler Corporation's depreciation rates, actually quite similar to those of General Motors, were stated as follows, in per cent written off each year: buildings, 2½; water and sewage systems, heating and ventilating equipment, fire-protection equipment, 5; real estate improvements, 7; electric wiring, gas lines, power equipment, 7½; machinery, power transmissions, furniture and fixtures, 10; furnaces, ovens, tanks, and miscellaneous 15; cars and trucks, 33⅓.

Despite the reality of charges made for depreciation, depletion, and similar items, the fact that they are book charges rather than cash expenses is significant for the analyst. In the oil industry, for example, where such charges are often extremely heavy relative to gross income, the ability of a company to run at a substantial loss and at the same time actually accumulate cash has been a strong element of protection for bondholders in depressed periods, although from the long-range viewpoint of the equity owners the loss may be real enough.

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[1] In 1947, numerous companies found it desirable to make extra provision for depreciation to offset rising replacement costs. For example, United States Steel Corporation supplemented its regular charge of $87,745,000 based on original cost with a special provision of $26,300,000 "added to cover replacement cost."

The policy of a company with regard to capitalization of numerous border-line expenditures may be highly important, though not always easy to ascertain. An income deficit may be turned into a profit, for example, through a decision to capitalize development expenditures such as advertising or research by adding the sum spent to goodwill or a similar account. Similarly, maintenance expenditures may be shifted into the classification of additions to plant.

In the oil-producing industry, the disposition of expenses for discovering and drilling prospective producing properties is a most important matter. Some companies capitalize all "intangible development expense" and amortize it gradually against future income, whereas others write it off completely against current income. A practice often followed is to write off the development expense of unsuccessful ventures and to capitalize expenditures on the balance.

Nonrecurring Profits and Losses. Usually included in the income statement as "other income" or "other deductions" are numerous items of a nonrecurring nature which seldom can be properly classified without individual scrutiny. The practical analyst ordinarily confines his attention only to those of important proportions, or of an obvious type. Such items are often found, also, charged or credited to surplus, so that it is necessary to examine the surplus accounts and consider whether some entries might more properly have been handled through the income account. Large losses, especially, have frequently been charged to surplus on the apparent theory that they would thus be less noticeable to stockholders.

Among major items of an occasional or nonrecurring nature are profits and losses associated with fluctuations in the value of inventories, fluctuations in foreign currencies, sale of investments or of fixed assets, revaluation of fixed assets, settlement of law suits, tax refunds or additional assessments, premiums paid on the retirement of bonds, profits on the repurchase of securities below par, write-downs or recoveries of accounts receivable, losses due to fire or flood, and charges or credits to various types of contingent or surplus reserves. With most of these items, proper treatment depends on the individual case. The important consideration for the analyst is to see that they are clearly stated and are treated consistently from year to year.

Provision for inventory fluctuations in particular is a serious matter in many industries, with regard to which great differences in accounting practice exist. Most companies follow the policy of writing down inventories when necessary against current income, yet many also build up reserves from income in prosperous periods to help absorb what are viewed as inevitable losses later. The effect of differences in inventory treatment on earnings may be marked, with certain companies showing a far more stable record of earnings than competitors equally well run and subject to the same industrial influences. One important determinant of profits reported when prices are rising or falling rapidly will be whether costs are calculated on a first-in first-out or last-in first-out basis. The latter "lifo" basis has been adopted widely during the decade since its recognition by the Treasury tax authorities. It has the effect of stabilizing reported earnings by reducing inventory profits and losses caused by price fluctuations.

The extent to which profits due to rising prices may become tied up in inventory is not always realized. From the standpoint of the business as a going concern, an inventory fully as large in terms of physical quantity is likely to be needed when prices are high as when they are low. Profits paid to stockholders from appreciation on normal inventory are in effect liquidating dividends.

Recognition of this fact has led many corporations to adopt an inventory system known as the "normal stock" system. A pioneer was the American Smelting and Refining Company, which is forced by the nature of its business to carry large stocks of copper, lead, zinc, and other metals whether prices are high or low. Under its system, a reserve is set up and maintained at a figure adequate to reduce what is considered to be the normal stock of the various metals to predetermined minimum prices. Stocks in excess of the normal stock are carried at cost or market, whichever is lower, with no reserve provision, but costs are determined on a last-in first-out basis.

Among the more difficult items to classify are charges to reserves whose nature is not clearly stated, such as "contingent" reserves or "general" reserves. Regardless of the title given such a reserve, the analyst needs to determine whether charges made are to allow for a reasonably definite liability or are simply to build up a special surplus to take care of unexpected losses later, or perhaps to hide an embarrassingly large current profit.

Frequently, additions to such reserves or reductions in them are not shown at all in the published income statement, and it is possible only to calculate the *net* change in the reserve occurring between balance sheet dates. Various types of reserves may also be grouped together under the common title of "other reserves" or "contingent reserves." This was true of Chrysler Corporation, whose large reserve items, shown only on the balance sheet, appeared as "reserves for contingencies, etc." until 1937, as "reserves: operating, contingencies, etc." in 1937, and were subdivided simply into "operating" and "contingencies" in 1938 and 1939.

Reserves for contingencies are usually treated by the analyst as appropriated surplus, unless the contingencies provided against are predictable. The Chrysler reserves, however, included several items of a distinctive nature. The operating reserve, as noted in our adjusted statement, appears to have been employed, in part at least, to smooth out fluctuations in earnings. Most important in the operating reserve in the years under review, according to figures supplied by the Federal Trade Commission report, was the reserve for price adjustments, a yearly reserve provided against possible price reductions on new motor vehicles in the hands of dealers. At the end of each model year, the balance in this reserve was added to sales as the models were discontinued. Also included in some years, though not stated in the published report, was a "reserve for employees' bonus."

Calculation of "Times Charges Earned." The measures that most conveniently sum up the implications of the earnings exhibit for the security analyst are the ratios of coverage of interest and other fixed charges and the indicated earnings in dollars per share of stock. These important measures will be discussed in some detail and standards of excellency suggested at appropriate points in later chapters, but presently we shall only comment on the calculation of coverage of charges.

The basic ratio of coverage, expressed as "times charges earned," is the ratio of "earnings available for fixed charges" to fixed charges, the latter term being used to include bond interest, interest on unfunded debt, and amortization of discount or expense incurred in the issuance of debt. Ratios may also be calculated for certain prior charges alone, for bond interest alone, for fixed charges plus sinking fund requirements or serial maturities, or for fixed charges plus preferred dividends, as will be explained later. Sometimes the nature or the size of rentals paid for leased property may require their inclusion in fixed charges.

One problem encountered in the calculation of coverage ratios is the question whether to deduct federal income taxes in arriving at earnings available for fixed charges. Technically, of course, the tax does not in normal cases apply except to net earnings remaining after deduction of such charges, so that coverage should be calculated before income taxes. Practice is not uniform on this point, however, and calculation of coverage after taxes is standard in some industries. In consolidated statements, the income taxes paid by subsidiaries are obviously a prior deduction. Since comparison of ratios is handicapped by the fact that many companies do not report income taxes separately, and since the analyst, when in doubt, should lean toward the more conservative method of appraisal, it is perhaps the better rule for him consistently to deduct all taxes *before* fixed charges.

Statement of Sources and Application of Funds. As a supplement to both the income account and the balance sheet, often helpful in reconciling and clarifying them, there is the statement of sources and application of funds. This statement is constructed by adding to net income net additions to reserves and receipts from long-term borrowing, sale of stock, or sale of assets in order to arrive at the net funds made available to the company for the year. From this total are deducted dividend distributions, debt retirements, and actual expenditures on new property. The balance reflects the net excess or deficit of resources over payments, which in turn should check with the change in net working capital for the year.

UNITED STATES STEEL CORPORATION
SUMMARY OF 1947 FINANCIAL OPERATIONS

Additions to Working Capital		
Income		$127,098,148
Add. Noncash costs in current year		
Wear and exhaustion of facilities		114,045,483
Other		1,118,833
Proceeds from sales and salvage of plant and equipment		4,084,565
Miscellaneous additions		778,051
Total Additions		$247,125,080
Deductions from Working Capital		
Expended for plant and equipment	$206,561,876	
Added to costs applicable to future periods	25,109,687	
Set aside for property additions and replacements	15,000,000	
Deposit with trustee to cover bonds maturing in 1951	5,404,000	
Reduction in total long-term debt	4,568,607	
Dividends declared on preferred and common stocks	70,911,750	
Total Deductions		327,555,920
Reduction in Working Capital		$ 80,430,840
Working Capital per Consolidated Statement of Financial Position		
December 31, 1947	$548,648,098	
December 31, 1946	629,078,938	
Reduction		$ 80,430,840

This statement is particularly helpful in tracing changes in property accounts and in judging the soundness of the financial policies followed. The amount of detail available will, of course, vary, but a summary, at least, may always be constructed from the income account and balance sheet. An example of such a statement taken from the 1947 annual report of United States Steel Corporation is shown on page 331; it is entitled "Summary of 1947 Financial Operations." This example is simple in form and nontechnical in language, representing an attempt to make the information intelligible to a maximum number of stockholders.

Operating Ratios. Some conclusions regarding an enterprise may be self-evident once adjustment and statement of a series of income accounts on a comparative basis is complete. Interpretation of other factors may hinge to a large extent, however, on the employment of certain accounting and statistical ratios, adapted according to the nature of operations and to the data available. We have warned against jumping to conclusions on the basis of comparative ratios alone, but, if caution is exercised and the underlying reasons for variations are examined, such ratios are useful tools. Certain ratios are often calculated by the companies themselves and presented in the annual report, particularly in the elaborate reports of the public utility and railroad industries.

Ratio analysis of income accounts is particularly valuable in pointing out the *trends* an enterprise is following. The analyst should never forget that success of the commitment he is contemplating in a security will be judged in the future, not the past.

A number of typical ratios are illustrated in the adjusted Chrysler income statement already presented. The most important of these are the operating ratios, which are used to break down so far as practicable the various costs and expenses to indicate the general efficiency and profitability of operations and the principal points of strength or weakness earningswise. They also may shed light on the relative conservatism with which earnings are stated, and when correlated with other factors they are sometimes extremely helpful in estimating future earning power.

Operating ratios are usually expressed in terms of per cent of sales or gross revenues, and the items included are such as cost of goods sold (perhaps subdivided into costs of materials, labor, and so forth), administrative and selling expenses (perhaps subdivided into advertising expense, salaries, and similar items), taxes other than income, maintenance, depreciation, depletion, and other significant divisions if available. The key ratio, however, is that of operating profit to sales. This is expressed either directly in the form of the *margin of profit,* or indirectly in the form of the *operating ratio,* which is the ratio of operating expenses to gross income, or the reverse side of the margin of profit. The operating ratio form of expression is employed in analysis of public utilities and railroads, where because of large capital investment and consequent heavy fixed charges there normally must be a wide margin between operating expenses and gross income. With industrial enterprises, employment of the margin of profit is more usual, though what is a satisfactory margin is, of course, subject to wide variations among the different industries, depending in large part on the size of gross revenues relative to the amount of invested capital required. For example, extremely narrow profit margins are the rule in a business with little fixed capital and a high rate of inventory turnover such as the typical grocery chain.

The size of the profit margin and the trend in evidence with respect to it are watched as primary indications of the success of management and the general health of the enterprise. Great care is necessary, however, in analyzing the implications of such measures, for changes in operating ratios may be due to many causes, and their significance will vary accordingly. A change in the ratio may reflect, for example, changes in the various elements of cost, in the physical volume of sales, in the prices at which goods were sold, or any of numerous combinations of these factors. A higher operating ratio, of course, does not necessarily mean lower profits.

The major elements of operating cost, which will frequently be the only ones available, are direct costs of goods or services, indirect costs of management and selling, and depreciation or related book charges. The ratio of direct to indirect costs is often used to measure the relative flexibility of cost items, direct costs ordinarily being more flexible and easily adjusted to changes in the volume of business than are indirect costs, or "overhead." This cannot be assumed in a specific case, however, without consideration of the constituent elements.

One significant division of operating expenses is that of executive salaries and bonus compensation. A satisfactory division is seldom easily obtainable, but top salaries and bonuses paid are now reported to the Securities and Exchange Commission. In some instances the basis of such executive remuneration has been unjustifiably liberal, to the injury of common stockholders, even though it may have been treated as a profit-sharing distribution instead of as an expense. Overliberality by the management to itself is naturally a tendency to be watched, and one means of measuring it is through comparative ratios. A similar problem is raised when plants or store premises are leased from privately owned realty companies affiliated with the management. The ratio of rent paid to sales in such a case might be illuminating.

Other operating ratios of value include rates of *turnover,* or ratios of net sales to inventory, receivables, net working capital, fixed assets, or net worth. Some retail stores, for example, may turn over their inventory completely every month, whereas a cigarette manufacturer will carry an inventory adequate for three years' sales. As a measure of profitability, important principally because of the tendency through regulation or taxation to reduce rates of return viewed as excessive, there is the ratio of net profit before interest to net worth or to total invested capital. A particularly high rate of return also raises the question of the probability of new competition.

Revenues as well as expenses and profits are a subject of ratio analysis, but only infrequently are they reported in sufficient detail to permit satisfactory breakdown into major sources. Growth in revenues over a period, however, is a pertinent subject of ratio analysis, particularly for purposes of comparison with other enterprises. The additional profit obtained in relation to additional sales volume is watched, when a company is growing rapidly, for indication that a point of diminishing returns is at hand.

A particularly useful method of comparative analysis is to relate financial data to physical data on production and sales. For example, there is included in our Chrysler statement "dollar sales per unit" and "operating profit per unit," the unit in this case being an automobile. In the steel industry comparable ratios would be "dollar sales per ton" and "operating profit per ton," and in chain store merchandising, "dollar sales per store" and "operating profit per store." The cost of production per ounce or pound of metal or barrel of oil is a useful comparative measure in the mining and oil industries. The "average rate per kilowatt-hour" is an important calculation for an electric power and light company, and the "average revenue per ton-mile" is a similar measure in the railroad industry.

Coordination Charts. Graphical presentation over a period of years of some of the ratios we have mentioned is often undertaken for purposes of emphasis or comparison. An increasing number of companies is employing charts in annual reports to make financial or operating trends clearer. A different type of statistical undertaking is the preparation of coordination charts which present two variables and, by the plotting of past figures, attempt to establish relationships likely to hold good in the future unless basic operating conditions change radically.

Such charts are widely used in short-term forecasts of earning power, and they are also helpful in reflecting the ability of a management to maintain or increase profit margins under changing conditions. Most commonly, they attempt to relate net income to a measure of physical production or sales volume. Sometimes, however, they are employed to bring out numerous, less broad operating relationships, such as labor man-hours or labor cost per unit of output, or cost of materials per unit of output at different levels of production.

A simple example of the type of coordination chart most useful to the security analyst would be a chart plotting the quarterly earnings of United States Steel Corporation, with the vertical scale representing dollar earnings and the horizontal scale representing quarterly volume of production, or average percentage of operating capacity employed. In the event the points plotted tended to follow a definite pattern, as they might be expected to in this case, there would be established a tentative relationship whereby the effect on net income of a given rate of production could be estimated and deviations from normal profitability detected.

Similar relationships may be established between, for example, the unit sales and net operating income of General Motors, residential building contracts and the net operating income of United States Gypsum, freight car loadings and the net operating income of a railroad, or an index of industrial production and the net operating income of some large industrial companies.

SUPPLEMENTARY READINGS

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Greidinger, B. B., *Accounting Requirements of the Securities and Exchange Commission,* Ronald, New York, 1939, Chapters 13 and 14.

Guthmann, H. G., *The Analysis of Financial Statements,* Prentice-Hall, New York, 1942, Chapters VIII and IX.

Prime, J. H., *Investment Analysis,* Prentice-Hall, New York, 1946, Chapters XIII and XIX.

PROJECTS

1. Prepare a condensed income account of an important industrial corporation, with comparative figures for a five-year period. Analyze it as you did the company in the "balance sheet" project.

2. Prepare a coordination chart relating the net income of a selected industrial company to physical statistics of production.

3. Examine five consolidated statements to note the manner in which earnings and dividends of subsidiary companies are treated in the consolidated income account. Which method of treatment seems best?

CHAPTER 21

Selection of Fixed-Income Securities

Analysis Should Provide Trustworthy Specific Judgments. We now turn from the general discussion of factors in analysis to the practical task of *selection*, expressed in terms of judgments on specific securities at specific prices. The security analyst normally is faced with a need for definite and reasonably prompt decisions, however obscure and conflicting may be some of the underlying factors involved. The goal of analysis is action, positive or negative, and if the basis for decision is imperfect it may still be entirely adequate for practical purposes. What steps, then, will lead us to a serviceable conclusion as to the investment quality of a given individual security, and how shall we place a value on it?

Emphasis in our discussion thus far has been on pitfalls and obstacles in the path of the analyst and on uncertainties operating to hamper the appraisal of risk and to prevent truly precise valuation of securities. This cautious approach should not, however, be taken to indicate that analysis is of necessity tremendously complicated or that trustworthy conclusions are not to be expected. On the contrary, reasonably simple and trustworthy analyses should be the normal rule where the analyst does not attempt to draw conclusions to a point finer than is justified for the type of security in question or by the data available. Analysis is in fact the one solid staff on which the investor may lean. The average margin of error to be expected in careful analysis of individual issues is insignificant when weighed against the magnitude of the errors which may so readily creep into general investment *policy*.

As we shall show in greater detail later, certain specific requirements are usually of dominant importance in analysis, and most of these are susceptible to satisfactory determination. The *internal risks* threatening solvency and profitability of an enterprise are calculable and may be measured through a more or less routine testing of specific points of strength or vulnerability. Risks of an *external* and less concrete nature are much less easily taken into account, but the forms they commonly assume are known, and through systematic checking it should usually prove possible to detect them and judge their importance with reasonable hope of success.

Need for Separation of Fixed Obligations and Equities. The first step in outlining a practical technique of selection is separation of the problem into its major divisions, selection of fixed-income obligations and selection of equities. We have argued that the line of demarcation between these two general classes of securities is often vague and that it is sometimes accorded more emphasis than is justified, yet there is an important distinction to be recognized in methods of approach to their analysis. This basic difference has to do with the qualities for which the investor is looking: whether he desires safety and stability in his commitment or whether he is willing to assume more risk to obtain profit, either through a high but uncertain return or through appreciation in market price.

(1) *Safety and Stability.* Fixed-income obligations, as we have seen, are employed by the investor primarily for the purpose of obtaining a steady income with safety of the principal sum and with relative stability in market value. In consequence, *the analyst's examination attempts mainly to weigh the assurances present that income and principal payments will be met.* Where the protection is considered inferior, a higher income return is expected. When any real doubt exists as to the adequacy of protection, however, safety and stability can scarcely be the governing criteria. Overly lenient standards of investment in bonds and preferred stocks have been a major fault of American investment practice in the past, and the lesson of experience is most emphatically that *where safety is desired* the strictest tests must be enforced. A higher yield is inadequate compensation for any significant impairment of protection.

(2) *Profit.* The method of analysis appropriate to equities, or to any securities unable to meet strict tests of safety and stability, involves *a frank weighing of opportunity for profit through high income return or appreciation in price against risk of loss.* Though such analysis, because of its greater need for anticipation of the future and the less calculable risks it must weigh, is almost inevitably less satisfactory than analysis of high-grade fixed obligations, it is for that reason a field in which opportunities for the expert analyst are great and penalties for snap decisions based on surface indications may be particularly serious.

An approach to analysis which distinguishes thus plainly between selection of high-grade fixed obligations with the aim of safety and stability and selection of equities or substandard fixed obligations for purposes of profit has the virtues of clarity and simplicity. A separate classification might be provided, of course, for the broad group of so-called medium-grade bonds and preferred stocks, securities which, though unable to meet strict tests of safety and stability, are commonly regarded as a far cry from equities. To be realistic, however, we must recognize that the term "medium grade" as usually employed is a neither-fish-nor-fowl classification which really means "neither high in quality nor low in price." Such securities, for numerous reasons, ordinarily form an unsatisfactory investment medium except in highly skilled hands. For purposes of analysis, they are certainly more nearly akin to equities than to high-grade fixed obligations, since though they may at times offer a worthwhile premium in yield they rarely offer safety. The same "common stock approach" is appropriate to them that is employed for low-quality fixed obligations which possess more obvious equity characteristics. Analysis must be adapted, of course, to allow for the extent to which investment or speculative characteristics predominate in the individual case, but the only safe rule is to approach all such substandard obligations primarily as if they were common stocks with limited possibilities for appreciation.

Our consideration of fixed-income securities, of bonds in this and the succeeding five chapters, and of preferred stocks in Chapter 28 will be aimed solely at the selection of high-grade issues. The selection of equities will be the subject of later chapters. Although the discussion of equities will be pertinent in general to substandard fixed obligations as well, greater attention to this difficult type of security is beyond the scope of the present volume. We shall confine ourselves to mentioning at this point a few significant characteristics of substandard fixed obligations.

Characteristics of Substandard Obligations. One important source of confusion to the inexperienced analyst is the tendency of such issues to give an illusion of safety and stability which they do not actually possess. Their nominal seniority, their specified asset priorities, and the fixed and regular amount of their interest or dividend payments often serve to obscure the true extent of their weakness. Unlike common stocks, which may reflect deterioration through gradual reduction in dividend payments, preferred stocks customarily continue to receive full dividends until trouble is far advanced, when they are suddenly completely eliminated. Full interest is normally continued on bonds until the situation is irretrievable.

It is particularly difficult to maintain a properly apprehensive attitude toward substandard fixed obligations in times of prosperity, when favorable business conditions are likely to be producing a fair margin of earnings protection and hopes are strong for its continuance. Typically wide fluctuations in market price attest to the heavy weight usually given current earnings of issues in this class.

That a fixed obligation is unable to meet strict investment tests is, of course, *prima facie* evidence of corporate weakness. This is a highly significant point for the analyst to bear in mind. The common stock of a soundly organized and financed company may possess marked speculative characteristics, but the senior security of a sound company should not. The attention of the analyst examining substandard fixed obligations is perforce concentrated on issues of inferior companies. He must choose among relatively poor risks. In the insurance sense, adverse factors of selection may be said to operate against him.

Associated with the generally weak nature of the corporations concerned is, naturally, a correspondingly large risk of insolvency. Particularly serious consideration in analysis of securities of this class must in consequence be given to the complex problems attendant on possible insolvency and receivership, including the questions we have noted of delay, expense, and impaired marketability and the possibility of eventual complete loss to security holders.

Avoidance of Loss the Basic Element in Selection. As we see it, the basic element in bond selection must be insistence on safety, or, to put it another way, the *avoidance of loss.* Stability in market price may or may not be necessary, but the bond investor cannot afford to compromise considerations of safety, for the reason that his return is so limited as to preclude the acceptance of more than a negligible proportion of losses. It is essential to set up ample minimum standards of quality and to adhere to them. These standards should not be established on the basis of normal conditions but on a "depression basis." If insistence on them results in limiting the number of acceptable bonds severely, such limitations may still be the soundest course.

It is customary in investment practice to distinguish between *money bonds* and *credit bonds.* The former are bonds so strongly situated that they may be expected to fluctuate primarily in line with trends in money rates rather than with intermediate changes in business and earnings, whereas the latter are bonds of more or less satisfactory quality whose margins of protection are sufficiently limited that short-term shifts in earning power are reflected to some extent in market price. This is a vital distinction for many types of investors. For the investor who can afford some concession in stability, however, credit issues of a good grade may provide an adequate degree of safety along with a measurably better yield than that obtainable on money issues, which are bid up by bank and institutional demand. The question of "adequate" safety is, of course, paramount to considerations of better yield.

Naturally, it is possible to adopt standards so strict as to be utterly impractical, but the inexperienced analyst should be warned that the results obtained from regulations based on supposedly strict standards have been distinctly disappointing. Witness the fate of many of the investors who in 1929 placed their faith in the legal lists prescribed by state banking departments, or who relied blindly on quality ratings prepared according to the formulas of reputable and competent statistical agencies. In theory, the analysis of high-grade bonds should be a relatively simple matter, for the analyst does not have to be precise but merely to determine that something above an adequate minimum margin of protection is present. In practice, experience warns strongly that what constitutes an adequate margin must not be underestimated.

What, then, shall we adopt as minimum standards of quality? What specific elements should be measured, and what protection in each case is adequate? It is obvious that desirable standards, in addition to varying according to the purposes of the given investor, will vary with the nature of the issuing enterprise.

The most important practical element in protection is the revenue available for debt service, and in this respect we find great differences in the margins of protection commonly established for the several major classes of issuers. Variations in the *relative stability* and permanence of net revenues are the chief reasons for establishment of these separate standards. The primary division is between civil and corporate issuers, but important subdivisions are also made. For corporate issuers, the major distinctions are between railroads, public utilities, and industrial companies.

Other principal elements in protection are the financial strength of the issuer, which should enable it to meet its obligations in the event that revenues are temporarily inadequate, and the security provided for the obligation, by which is meant protection afforded the holder of the obligation through lien on property or otherwise in the event of default of payments. Of these elements that of security, formerly given particularly heavy weight, is now recognized as definitely subordinate to earning power and general financial strength, which measure the ability of the issuer to stay out of trouble by meeting all obligations as they fall due. What is an adequate margin in either case will naturally vary with the nature of the issuer.

Standards Available for Guidance. Although we have commented on the limitations of the ratings of bonds according to quality published by the principal statistical organizations, these ratings are prepared in accordance with specific standards set up by the respective agencies and represent practical labor-saving devices of reasonable accuracy. As we pointed out, they are much more satisfactory as expressions of the relative quality of individual obligations than as measures of safety in the absolute sense. They are useful as a means whereby the analyst may check his own judgment on a given security against the judgments of others.

Another source of guidance for the analyst is the body of state legislation to which we have referred which governs the selection of securities for investment by savings banks and trust funds. These statutes are adapted only slowly to changing conditions, with the consequence that they reject some attractive types of investment and permit the purchase of others of dubious quality, often on the basis of tradition or expediency rather than investment merit, yet the standards set forth will be found of value. Those of the various states will be found to diverge considerably. We shall have occasion to refer from time to time to specific provisions of the most important of the statutes, that of New York, which was outlined in general terms in Chapter 14.

An interesting attempt at the establishment of definite standards of quality for a specific investment purpose was the joint effort of the New York State Bankers Association and the Standard Statistics Company to set up "bond quality yardsticks" for bank bond portfolios.[1] These yardsticks consist of specific minimum ratios of protection suggested for the obligations of each principal class of issuer, the purpose being to establish practical guides rather than inflexible tests. Though set on a highly conservative basis in order to exclude all except money bonds, such standards are also helpful in bringing out relative strength or weakness in issues being analyzed from a less exacting standpoint.

Tests of a Corporate Fixed-Income Obligation. A practical procedure for the testing and selection of corporate fixed-income obligations is outlined in the five general steps listed below. In Chapter 23 we shall suggest a similar procedure appropriate to analysis of civil obligations. With corporate obligations the most important factors are:

1. Nature of the enterprise.
2. Terms and position of the issue.
3. Earnings protection.
4. Asset protection.
5. Market tests and comparison with other issues.

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[1] See A. M. Massie and others in *Proceedings of the Conferences on Bond Portfolios,* New York State Bankers Association, New York, 1939, pp. 73 ff.

A definite pattern of approach of this type greatly simplifies the analyst's problem through assuring methodical checking of vital points and through simplifying comparison of the merits and faults of different issues. Specific margins of protection will be suggested as desirable at certain points in the ensuing discussion, but few such requirements are equally applicable to all types of companies, even within a single industry, and it is more important to see that all major factors are considered than to insist on the satisfaction of a list of arbitrary standards. Practical procedure will involve balancing excess margins of protection in some respects against failure to measure fully up to desirable standards in others.

(1) NATURE OF THE ENTERPRISE

In examining the background and nature of an enterprise, the analyst, of course, considers the nature of the industry as well as that of the individual company. He wants to know, first, the degree to which the industry is fundamental or to which it is subject to changing forces of demand or methods of supply. Secondly, he needs to consider its probable future profitability and the degree to which earnings are likely to be stable or unstable.

Particularly if the maturity of the obligation under consideration extends many years into the future, it is important to obtain assurances that the industry is basic and subject neither to complete displacement of the sort that overtook carriage manufacture nor to overwhelming new competition such as that which made street railway operation unprofitable. Possible new taxation or governmental regulation or competition must be given attention. The uncertainties of competition in many industries are heightened by sharp fluctuations in net income as a consequence of profits or losses on inventories or of similar unpredictable developments.

It was for such reasons that for many years railroad bonds were virtually the only corporate issues included on legal lists. Freedom from competition, performance of a basic and essential service, and a stable record of earnings combined to create confidence in the continued ability of conservative railroads to meet their obligations. Development of new competition and loss of earnings stability in recent years have, of course, greatly impaired the investment position of railroads. Real estate mortgage bonds were regarded highly for many years, but they also have suffered from the experience of the 1930's. At the same time, a favorable record on the part of the electric power and light industry has brought that basic and growing industry a high investment standing.

In existing legislation governing savings banks and trust funds, corporate issues other than railroad, public utility, and real estate bonds are by and large still looked on as unsuitable holdings for conservative investment. Typical legal provisions in this respect, however, no longer reflect the consensus of informed opinion.

To one familiar with the rise and fall of railroad credit, in particular, it seems illogical that the issues of electric utilities, with their heavy burdens of debt, should acquire any significant premium over well-protected obligations of strong industrial companies operating in more competitive lines. At least it is well to consider the extent to which stability in the earning power of an industry may be offset by a habitually heavy burden of debt. It is true that many industrial classifications offer undesirable hazards, yet it appears also that temporary fluctuations in earning power are often given excessive weight in disqualifying strongly situated industrial concerns with moderate debts and a favorable average record of earnings.

Whatever the industry, the analyst should demand that the individual company occupy a soundly established position in it. The company should be large enough to be an important factor, and it should be seasoned in the sense that it has operated through conditions both of prosperity and of adversity. A recently engineered large-scale consolidation of companies is often dangerous until it has been shaken down into satisfactory operating condition over a period of years.

Under the New York statute, the minimum size required for railroads whose bonds may qualify as legal investments is either 500 miles of standard-gage line or $10,000,000 annually of operating revenues. For electric and gas utilities, a minimum average gross revenue of $1,000,000 is prescribed, and for telephone companies, $5,000,000. These standards are satisfactory for most purposes, though a higher figure for electric and gas utilities would be better. More important is a minimum figure for industrial companies, where small size is a more serious handicap. With these companies, gross revenues are not a satisfactory indication of invested capital, and we shall suggest instead the employment of a minimum total market valuation of outstanding securities of $5,000,000 as a fair standard of size, though it should be recognized that in some industries such as automobile manufacture or oil refining a company of this size would be dangerously small.

Size *alone,* of course, cannot assure safety, but it does lessen vulnerability to many operating hazards. Although any reasonable requirement as to minimum size may operate to exclude some sound issues, the analyst is primarily concerned with avoiding trouble and must be reconciled to erring on the side of strictness.

In considering the economic importance of a company, its location is naturally significant, particularly so in the case of railroads, public utilities, department stores, and other enterprises which are heavily dependent on the prosperity of a specific area. Location with respect to markets or to raw material sources is, of course, a vital factor in the operating efficiency of an enterprise. Adverse local taxes or labor costs may place a company at serious disadvantage in competition with concerns located in other areas.

Various qualitative factors with reference to efficiency of management are also given weight at this point. If practicable, judgment of the management's competence may be based on direct investigation. Ordinarily, a useful substitute is study of comparative operating ratios, although such ratios reflect many other factors in addition to managerial skill. Operating ratios vary so greatly among industries that standard ratios have value only within each industry group, yet with allowance for this they are the most satisfactory measure available of the relative efficiency of a company, whether in a given case they reflect primarily skillful management, efficient plants, or other factors. Examples of conservative ratios of operating expenses to gross revenues suggested as maxima by the New York Bankers-Standard Statistics study are (calculated on the basis of a six-year average): chemical companies, 73 per cent; steel companies, 84 per cent; auto tire companies, 90 per cent; meat-packing companies, 97½ per cent.

Another measure of efficiency is the ratio of net property to gross revenues, indicative of the effectiveness with which plant is employed. In the study just referred to, the maximum ratios suggested included (also on a six-year basis): chemical companies, 125 per cent; steel companies, 100 per cent; auto tire companies, 40 per cent; meat-packing companies, 15 per cent. Other essential factors peculiar to an industry may require checking. Ownership of adequate ore reserves by a mining company, for example, may not be taken for granted, and with some companies attention must be given the expiration dates of vital patents or important contracts.

(2) TERMS AND POSITION OF THE ISSUE

The essential factors to be checked at this step are (*a*) the contractual provisions of the issue and (*b*) its size and position relative to the other obligations of the issuer.

There is no need here to enlarge further on the variety of contractual provisions which may exist to afford protection to the issue in question. It is necessary to determine what these provisions are, and it is conceivable that some of them may be of great value, but it is a safe rule not to stress contractual provisions at the expense of insistence on a strong and healthy business under competent management. Despite the theoretical advantages of first mortgage issues, experience has indicated with increasing strength that primary emphasis must be placed on the ability of the enterprise to meet *all* its obligations. Other factors being equal, of course, priority of lien is obviously desirable, but the debenture of a first-rate company is greatly preferable to the first mortgage of a third-rate enterprise.

Existing savings bank statutes in general do not recognize this point of view but insist on mortgage protection. New York permits unsecured corporate obligations only in the case of railroads or on special petition, subscribed to by a group of savings banks. In the railroad group, it somewhat illogically extends legal privileges to include even income bonds.

Other important provisions include in particular the call price, which together with the coupon rate may indicate probable refunding, and the sinking fund, if one is provided. A bond whose price has been held down by the threat of call relative to prices prevailing on other issues of comparable quality is often a very satisfactory holding in a period when bond price trends are unfavorable. On the other hand, when bond prices have been rising, the more attractive callable issues may sell at prices that actually mean a *negative* yield (i.e., a loss) in the event that they are redeemed at the earliest call date. Needless to say, the investor who purchases an issue on such a basis is simply gambling unless he is in a position to obtain trustworthy information on the issuer's intentions or is able to own a large enough number of such issues to reduce the importance of the losses on those issues called.

Sinking funds, if effective and of significant size, are important both for the support they afford to market prices while they are in operation and for their beneficial effect in gradually reducing a debt so that its maturity will not present a serious financial problem.

The capital structure of the issuing company is analyzed in order to bring out the relative size and position of the issue, both to show the relative amount of obligations, if any, senior to it and to indicate the amount of junior capital which may be said to serve as a "cushion" against loss to the bondholder. If several issues of debt are outstanding, maturity dates are important. A senior issue that is amply protected may, for example, suffer at least temporary embarrassment should an excessive quantity of junior debt fall due at an earlier date. No matter how sound the particular issue under analysis, a poorly balanced capital structure may spell trouble.

One calculation we have noted which is useful in indicating the margin of protection for an issue is the appraisal of this margin by the public or, in other words, the value placed in the market on junior issues. Book or par values are used ordinarily for minority interests or other items for which a market appraisal is not readily available. The market valuation of Goodyear Tire & Rubber on December 31, 1947, will serve as a convenient illustration.

Market Valuation: The Goodyear Tire & Rubber Company

December 31, 1947

Capital Structure	Valuation	Per Cent of Total
3½%-2¾% Serial Notes, 1951-1964 (at par) .	$ 31,579,000	12.0
3% Serial Notes, 1952-1967 (at par)	68,421,000	25.9
TOTAL FUNDED DEBT	$100,000,000	37.9
Subsidiary preferred stock (at par)	14,033,000	5.3
Minority interests (at book value)	2,295,000	.9
TOTAL DEBT AND MINORITY INTERESTS	$116,328,000	44.1
$5 Preferred Stock (at market, 99)......	58,460,000	22.2
TOTAL SENIOR OBLIGATIONS	$174,788,000	66.3
Common Stock (at market, 43)... . .	88,795,000	33.7
MARKET VALUE OF TOTAL CAPITAL......	$263,583,000	100.0

A conservative maximum for the ratio of total debt to the total market value of an industrial company is sometimes placed at 25 per cent, but no satisfactory generalization is possible. Such a ratio would be high for certain types of highly speculative enterprises such as mining companies, and unnecessarily low in other instances. A ratio of 60 per cent funded debt to market value of total capital is considered permissible for a public utility or railroad, though such a ratio should call for careful investigation of the stability of earning power in the particular instance. In such a case, there should be evidence of gradual progress being made in reducing the proportion of debt.

A measure of this type is, of course, to be regarded only as a supplementary indication, for it is subject to distortion through irrational appraisal of stock values by the market. Such a ratio calculated on going-concern value is, however, more realistic than similar ratios calculated on the basis of book value, as illustrated for Goodyear in Chapter 19. The New York statute looks only to the books, requiring that the outstanding full-paid capital stock of utility companies whose secured bonds are to qualify as legal investments be equal to at least two-thirds of the total debt secured by mortgage lien (a 60 per cent ratio of mortgage debt).

(3) Earnings Protection

Earnings coverage for fixed charges is the primary test of bond quality. In the single ratio of "times fixed charges earned" we express not only the margin by which the company has been able to meet its interest payments as they fall due (the "margin of safety" or "factor of safety"), but also indirectly much information on the stability of earning power, the degree of pyramid existing in the capital structure, the seriousness of the burden to the company represented by charges on debt, and similar factors.

The problem of adequate earnings protection is approached from three directions: average earnings, minimum earnings, and earnings trends. A record of earnings over a sufficient length of time is essential. State statutes generally provide that a company must have been in existence for a minimum period of years and that no default in interest or principal payments may have occurred for a specific period preceding investment. In New York, these periods are six years for railroads and eight years for public utilities.

In bond analysis, the first emphasis is generally placed on average earnings for recent years, usually the last five to ten. A stricter provision often employed is that earnings must have equaled a certain minimum standard in each year for a specified period. The New York statute provides that total fixed charges of railroads must have been covered 1½ times in at least five of the past six fiscal years as well as in the year immediately preceding in the case of secured bonds, and twice in the case of unsecured bonds. The same statute provides that gas and electric and telephone utility companies must show an *average* coverage for the past five fiscal years of twice the fixed charges, including a coverage of two times in the year immediately preceding. For both railroads and utilities, these provisions are supplemented by additional provisions of uncertain practical value relative to the payment of dividends on capital stock or the availability of earnings for the declaration of such dividends.

In consideration of money bonds, a provision that earnings coverage may not have dipped below a certain figure is desirable, because maintenance of such a margin in depression years is usually required for stability marketwise. For ordinary purposes an average of results for the past five years is adequate, provided that such years include both depressed and prosperous conditions. In some instances, of course, unsatisfactory earnings may be offset by the guaranty of one or more strong companies, as with certain railroad terminal bonds.

The highly conservative ratios of earnings coverage recommended in the New York Bankers-Standard Statistics study were six-year averages of 2¾ times for electric operating utilities, 3 times for railroads, and 6 times for most classes of industrials. Minimum requirements suitable for most purposes would be lower than these, say a five-year average of 2 times for public utilities and railroads, and 3 times for industrials. However, unusual elements of strength or weakness in other respects may justify variation from this rule.

Additional light may be thrown on the margin of coverage by calculation of the number of times fixed charges have been earned on a cash basis (i.e., on the basis of earnings before deduction of charges for depreciation and depletion but after provision for sinking fund payments and similar cash requirements), so that the actual ability to meet payments without dipping into working capital is shown. Another ratio useful in facilitating comparison between companies is the ratio of earnings to par value of debt, which eliminates distortion due to different coupon rates. That is, for example, a coverage of 1.5 times a 6 per cent coupon rate on a bond issue could be turned to a coverage of 3.0 times through refunding into a 3 per cent coupon rate. Many companies have improved their coverage and perhaps created a false impression of earnings progress through this process. Necessity to refund at a higher rate would, of course, produce the reverse effect and possibly give rise to a difficult problem for public utility companies whose revenues had been squeezed down to a low interest rate basis.

Still another useful calculation is the ratio of net profit *after* fixed charges to gross income. This ratio gives an indication of the "practical pyramid" by revealing the extent of the decline which could be suffered in gross business or in the margin of profit before coverage of charges would be impaired.

Though the bond analyst places a minimum of stress on attempts at forecasting the future, he cannot close his eyes to the fact that the success of his commitment is bound up in the future, and in consequence he must consider earnings *trends* as well as the existing and past margins of coverage. A favorable trend of coverage may justify acceptance of a security not able yet to meet the average requirement, whereas an unfavorable trend may bring about the rejection of an issue otherwise qualified. In gaging the significance of these trends, the analyst will have occasion to note the trends of the various operating ratios we have outlined as well as to weigh pertinent qualitative factors. He will also consider the trend of total debt outstanding. If there has been an important change in outstanding debt, he should calculate hypothetical coverage of charges on the current amount of debt as well as actual coverage of charges met in the past.

The ratios we have been considering have had reference to the coverage of *total* fixed charges, including fixed interest on funded debt, interest on unfunded debt, and amortization of discount and expense on funded debt. This is known as the "over-all" basis. When there is outstanding debt junior to the issue in question, coverage is also calculated on the basis of the number of times all fixed charges senior to and including those on the issue in question are earned. The latter ratio shows the protection afforded according to the legal rights of the individual issue; the former shows the more significant margin by which the company as a whole is able to avoid difficulties in meeting its fixed obligations.

Sometimes coverage is calculated on the basis of the earnings available to each individual issue. The misleading results which may be obtained by this method are illustrated in the following hypothetical example,

CALCULATION OF EARNINGS COVERAGE

Income Account Item	Amount	Times Interest Earned		
		(1) On basis of earnings available to individual issue	(2) Including all charges senior to and including the issue in question	(3) On basis of over-all coverage
Earnings available for fixed charges	$4,000,000			
Interest on first mortgage bonds	2,000,000	2 0	2 0	..
Balance available for debenture charges	$2,000,000			
Interest on debenture bonds	500,000	4 0	1 6	1 6
Balance	$1,500,000			

in which the debenture issue appears on this basis to have earnings protection twice as satisfactory as that of the senior issue, though such a conclusion is manifestly contrary to the real truth as expressed by the second and third methods. This point is of particular importance in the calculation of coverage on small junior issues of preferred stock.

(4) Asset Protection

Earning power is supplemented by asset protection of two basic types: *financial strength* to tide over periods of temporarily inadequate earnings, and *ownership of fixed property* that may provide salvage value in the event that the enterprise is unable to meet its obligations as they fall due.

The requisite financial tests are few but important. Something beyond the conventional minimum current ratio of 2 to 1 is demanded in most industrial classifications, and as a general rule in manufacturing and merchandising industries net working capital should be equal to the total of funded debt. The usual practice in the latter respect is to calculate the ratio of net working capital to debt. In the railroad and utility industries different standards apply because of the different types of operations, but a strong financial position is equally desirable. A satisfactory current ratio for a railroad or utility would ordinarily be 1.5 to 1.

Current ratios should be supplemented by a minimum quick asset ratio of 1 to 1 for industrials and of 0.5 to 1 for railroads and utilities, though rigid application of this test may be dispensed with often. Additional ratios expressive of financial condition are employed in accordance with the nature of the industry, particularly those industries where inventory problems bulk large, but the primary question is adequacy and liquidity of working capital. In this connection, consideration must be given to early maturities of fixed obligations and possible problems in refinancing them, and to the question of funding of plant expenditures planned or in process.

Subject to the qualifications we have made regarding delays and difficulties in enforcing liens and the shrinkage in value of property which accompanies the default of obligations, the ratio of debt to net property is a useful comparative test even for bonds with no mortgage provisions. Taken together with working capital, fixed assets at least afford a tangible foundation for earnings and a basis for estimating "liquidating" value.

The theory that bondholders may fall back on the value of pledged property if earnings fail is invalid to the extent that the property is dependent on the earning power of the enterprise, yet, if a mortgage issue is small relative to the total debt and the pledged property is vital to the business or is easily adaptable to other purposes, its holders may enjoy a substantial measure of independent protection.

Numerous so-called "underlying" railroad obligations have continued to receive regular interest payments during receivership and have emerged unaffected in the reorganization, despite drastic curtailment of total fixed charges. In such instances relatively small size of the issue, enabling the receiver to meet charges on it easily, appears to have been fully as important a consideration as the actual strategic value of the pledged property. For railroad equipment trust issues, secured by rolling stock, which have had a particularly favorable record, the key factors appear to have been the practice of serial repayment which steadily reduces the obligation secured by the equipment, usually more rapidly than the equipment depreciates, and the fact that such equipment is mobile and may be readily repossessed.

A typical statutory provision is that the bonds outstanding under a mortgage shall not be in excess of 60 per cent of the value of the net physical property pledged. In practice, such a provision may serve well enough as a maximum limit, but it is hardly satisfactory to apply any fixed rule in this respect. The debt ratio that is permissible will depend both on the nature of the enterprise and on the type of property concerned. In general, it may be said that obligations of industrial enterprises should possess a greater margin of protection than those of public utilities. Much will also depend, of course, on the basis of property valuation. We indicated in an earlier chapter methods through which property values might be tested, among them in particular a comparison of the ratio of net property to the gross revenue that is being obtained from it and the ratio generally prevailing in the industry.

(5) Market Tests and Comparison with Other Issues

The principal market tests to be applied to an issue are tests of *marketability* and of *stability in price.* Marketability, of course, is normally a function of the amount of the issue outstanding. Issues of less than $5,000,000 will rarely possess an active market. What constitutes adequate marketability is dependent partly on the purposes of the investor and partly on the size of the commitment he expects to make. With listed bonds, a record of the number of bonds traded each day is published, though the larger transactions are frequently consummated "off-the-board." With unlisted issues, it is not at all difficult with the aid of dealers to ascertain the approximate activity to be expected. An important factor in giving breadth to the market for a bond is legality for fiduciary investment purposes.

The most practical measure of the relative stability of an issue marketwise is the record of its price action during recent years, and particularly during years of adverse business conditions. In prosperous periods bonds of inferior quality tend to sell on almost the same basis as really high-grade issues. The following comparison of price action on the part of bonds of three leading oil companies in the period 1930–1934 is presented to indicate the manner in which vulnerability develops in the prices of lower quality bonds during periods of stress. Because of the unprecedented intensity of financial strain in the period shown, this example is exaggerated, but it will serve as a satisfactory illustration. The bonds of all three companies were adequately protected during the whole period unless it were to be assumed that the large deficits incurred by Shell and Texas in 1931 and 1932 as a consequence of a collapsing oil price structure would continue indefinitely. Each of the companies repurchased and retired substantial quantities of debt during this period. The Standard Oil issue, which was emphatically a money bond, was held down in price at the final date shown by imminence of redemption at 102.

PRICES OF THREE OIL COMPANY BONDS, 1929–1934

Date	Standard Oil Co. (N. J.) Debenture 5's—1946	Texas Corporation Convertible Debenture 5's—1944*	Shell Union Oil Debenture 5's—1947
Dec. 31, 1929	102¼	101¾	95¼
June 30, 1930	103	102¾	97
Dec. 31, 1930	104⅝	100¼	77½
June 30, 1931	103⅜	95	77½
Dec. 31, 1931	100½	72½	58¼
June 30, 1932	101¼	74½	52½
Dec. 31, 1932	104¾	93	83
June 30, 1933	104⅛	93¾	79⅜
Dec. 30, 1933	105	97¼	90
June 30, 1934	105⅝	103½	99⅝
Dec. 31, 1934	102¼	103¼	102¼

* Conversion privilege of negligible value.

Comparison with other issues is an essential prelude to actual selection. The yield basis on which a high-grade bond sells on the market is in itself a useful quick indication of relative quality. One might with little difficulty point to glaring exceptions, but such a test is not so foolish as it may seem, provided that it is used merely to supplement other data. The reason for this is that such bonds receive a minimum of speculative attention and their prices tend in normal times to avoid unreasonable extremes, being governed principally by the actions of large institutional and individual holders whose decisions are placed in the hands of expert judges of value. Such judges are by no means infallible, but they are continually on the alert for instances of bonds selling higher or lower than is justified on the basis of relative quality. A security that remains for long "on the bargain counter" under these circumstances is at least open to suspicion.

Bearing this caution in mind, the analyst in actually purchasing a security nevertheless still wants to obtain a relatively good value; in other words, a bond that is favorably priced relative to the prices obtaining for other bonds of equal quality. The final step of analysis must reach a conclusion on an actual market price.

The basis on which high-grade bonds are compared is not, however, actual market price in dollars. Instead, comparison is made in terms of *per cent yield to maturity,* a practice necessary in order to allow for varying coupon rates and varying maturity dates. Since bonds rarely sell exactly at par, allowance must be made for the difference between the amount paid for the bond and the amount to be returned on maturity. If more than par is paid, a sum must be set aside out of interest income to amortize this premium by the maturity date. If less than par is paid, the additional amount to be received on maturity is treated as deferred income. It is essential to realize that the rise to be expected from a present price of $950 on a long-term, high-grade bond to the maturity value of $1,000 does not represent profit but simply part of the yield anticipated. As noted in Chapter 2, the intricacies of such calculations are considerable, and the yield is generally determined by reference to special bond-yield tables.

The primary yardstick for comparison of high-grade bonds is the yield obtainable on a United States Government bond of similar maturity. Ownership of a corporate issue, no matter how high in quality, is justifiable only on the basis of greater net yield. Government obligations are assuredly not without risk, but they are free from a vast number of the hazards that beset corporate issues. Moreover, they involve no elaborate analysis, they possess the broadest and most active markets, they qualify as legal investments everywhere, and in addition the older issues enjoy limited exemption from taxation.

The second comparative yardstick is, of course, the yield to be had on other corporate bonds of similar quality, particularly the more active and important issues (the premiums some will command because of legality being kept in mind). The only really satisfactory basis for such comparison is thorough analysis of the various issues and measurement of their qualities according to the standards already determined on. Where this is not feasible, however, the yield on the issue analyzed may be compared with that obtainable on issues rated the same for quality by the leading statistical services. The analyst has already tested the essential factors of safety and stability, and he may well at this stage be satisfied with something less than complete proof that better bargains are not available.

SUPPLEMENTARY READINGS

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Harold, G., *Bond Ratings as an Investment Guide,* Ronald, New York, 1938.

Lagerquist, W. E., *Balancing and Hedging an Investment Plan,* Ronald, New York, 1941, Chapter 11.

Shaffner, F. I., *The Problem of Investment,* John Wiley & Sons, New York, 1936, Chapters VIII to X.

PROJECT

Examine the laws of your state with respect to legal investments for savings banks and trust funds. Prepare a statement, pointing out any respects in which these regulations seem unduly restrictive, inadequate, or unsound. To what extent do you recommend them as a guide for the individual investor in managing his funds? Defend all your contentions fully.

CHAPTER 22 Civil Obligations

A. GENERAL DISCUSSION

Civil Loans Defined. The term "civil loan" includes all the obligations of national governments and of their several subdivisions. The latter embrace states, provinces, counties, cities, and villages as well as districts created to perform some special function like the operation of schools, waterworks, bridges, irrigation systems, and numerous other projects. The courts have decided that bonds wholly dependent on the operating revenues of municipal utilities also have the status of civil loans. In financial circles the term "municipal" is applied loosely to all domestic civil loans except those of the United States Government.

Common Characteristics. Under our federal system, sovereignty is possessed by the United States and by each of the forty-eight states. Other and lesser political units are mere creatures of a state and possess only such powers as it delegates to them in its constitution and the enactments of its legislature. The two attributes of sovereignty which concern us here are a state's right to levy and collect taxes and to be exempt from being sued in its courts without its consent. The American states have delegated the right to levy taxes to most of the subdivisions of government which they have created, but they have withheld from them exemption from suit. An exception to the former is an instrumentality like the Pennsylvania Turnpike Authority which was organized to own and operate a toll road but lacks the power to levy taxes. On the other hand, the Golden Gate Bridge and Highway District was given the power both to collect revenue from its patrons and, if necessary, to levy taxes on the property included in the district.

Exemption from suit concerns the investor for the sole reason that if the federal government, a state, or a foreign government defaults on a payment of interest or principal no remedial legal action can be instituted against it without its consent, except that one state of the American

Union may sue another state. Several of the states, however, have specifically waived their exemption. In the case of defaults by minor governmental units, action can be brought in the courts as freely as against private parties.

The added protection afforded by the taxing power gives an advantage to civil obligations which those of private corporations do not possess. Most civil loans are unsecured, but, especially in countries with relatively poor credit standing, loans are sometimes backed by a pledge of specific property or, more often, of specific revenues such as a tax on salt, matches, tobacco, or imports.

B. THE OBLIGATIONS OF THE UNITED STATES GOVERNMENT

The Public Debt. In Chapter 3 we considered the several types of obligation of the United States Treasury from the standpoint of their qualities as investment media. The enormous size of the national debt and its importance as an outlet for individual and institutional funds call for a further examination into the investment status of government obligations.

The debt of the federal government has varied greatly in amount from time to time. After a marked increase in borrowing because of a war or other serious crisis, the policy of reducing the burden as rapidly as possible has been followed. At one time, 1835, the national debt was completely paid off and a surplus accumulated which was distributed to the several states under the guise of a "deposit."

Our participation in World War I caused the public debt to increase from but 989 millions in 1916 to more than 25 billions in 1919, but a rigorous effort at debt reduction in succeeding years had decreased the total by more than 9 billions by the end of the fiscal year 1930.

The fiscal year 1931 marked the beginning of a new chapter in American government finance. The large annual surpluses which had accumulated in the Treasury, in spite of successive reductions in tax rates, were followed by as great annual deficits. In spite of desperate efforts to balance the budget, the fiscal year of 1932 ended with an increase in the federal debt of more than 3 billion dollars. With the advent of the Franklin D. Roosevelt administration, a changed policy came into being (viz., a marked increase in public spending with a view to curing the depression rather than a curtailment of expenditures in the hope of balancing the national budget). As a result of a continued subnormal income and mounting expenditures for public works, various forms of relief and enlarged government functions, the outbreak of World War II found a debt of more than 40 billions of dollars and a budget still badly unbalanced.

The greatly increased threat to our safety occasioned by continued totalitarian successes in 1940, followed by our entry into the war in late 1941, led Congress, with general approval, to throw attempts at budget balancing to the winds and to appropriate sums greatly in excess of the amounts that even heavily increased tax levies could produce. As a consequence, the national debt kept mounting until it reached a peak of 279 billions in 1946. The reduction in expenditures in the post-war period, coupled with an increase in revenues, enabled the Treasury to retire sufficient maturing obligations to reduce the total to approximately 250 billions by early 1948. In spite of the almost astronomical size of the public debt, there has been general agreement in both major parties respecting the desirability of reducing it as fast as business conditions and the current requirements of the government will permit. The annual interest burden of approximately 5 billion dollars absorbs a substantial share of the Treasury's receipts. The stiffening in interest rates following the close of the war meant that all refinancing imposed a greater burden on the government and the taxpayer. A depression or even a mild reaction from peak production and national income brings with it a reduction in the Treasury's receipts and retards the program of debt retirement or even results in an increase in the total because of deficit financing.

The government was fortunate in having to face so great a burden at a time when interest rates had reached a new natural low and in being able to stabilize them at this minimum point. On the other hand, these same low rates meant that investors and investing institutions had to be content with a reduced income not only from government obligations but also from every other form of high-grade medium. In World War I the Treasury, confronted by a rise in interest rates, was compelled to float successive loans at a constantly increasing cost. Profiting by this experience, the government, in World War II, adopted a policy of offering its obligations at relatively fixed low rates and relied on the Federal Reserve Open Market Committee, in cooperation with the Treasury and the banks, to provide the necessary controls.

Throughout World War II, and for two years thereafter, short-term government obligations commanded a very low yield. At the same time, the prices of the longer term Treasury bonds were kept high, and the yield low, by the great demand from the banks and other institutional investors as well as the high "support" price maintained by the Federal Reserve authorities.

In 1947, the persistent post-war inflation spiral caused some relaxation of the policy of maintaining subnormal rates for short-term government paper at the same time that the "support" price of long-term obligations was lowered. As a result, the prices of the bonds declined, but not below par, and the rates on the short-term obligations rose to the highest point since 1933. The enforcement of artificially low rates on government paper during a war is undoubtedly sound fiscal policy, and some measure of control in the post-war period is called for, in view of the huge size of the debt and the important place which government obligations occupy in investment portfolios of banks, insurance companies, and other investors. However, even though higher interest rates impose a greater burden on the taxpayer, he stands to gain much more if this stiffening in rates helps to bring about an end to inflation. Moreover, the powerful influence of the yield on government obligations on that of private securities will tend to offset any increase in the tax burden. In its operations in connection with its own bonds the government has at its disposal the funds of not one but several different agencies. There are the large sums accumulated by the Social Security Administration, the Federal Deposit Insurance Corporation, the Postal Savings System, and a long list of other funds under federal jurisdiction. The Open Market Committee of the Federal Reserve System can give generous buying support to the market if it is inclined to be weak. Then, too, there is the authority granted under the Thomas Amendment to the Agricultural Adjustment Act of 1933 which authorizes the Reserve banks to acquire up to 3 billions in government obligations.

Naturally, the purchases and sales by any or all of these agencies will be synchronized with bond price stabilization operations. The resources at the disposal of those federal agencies which have funds that can be invested in government bonds are sufficient to absorb a considerable part of the whole government debt.

Ancillary to the power to influence the market directly is that given to the Board of Governors of the Federal Reserve System to raise or lower the reserve requirements of member banks. At times when the member banks hold a large excess of reserves and the requirements are close to the limit to which the Reserve Board can go in raising them, an increase will exert little influence. However, when a more active business situation develops, increased reserve requirements tend to cause heavy selling of government holdings by the banks. In like manner, through its authority to fix the margin required for loans against stocks and bonds the Reserve Board can influence the money market. The post-war relaxation in the federal controls over money rates, coupled with a greatly increased volume of new offerings in the municipal and corporate fields and a greatly expanded amount of real estate obligations, brought about a general increase in interest rates. The following table[1] shows the changes that occurred in yields and rates on various types of securities and loans:

U. S Government Obligations	Average for December, 1946 %	Average for December, 1947 %
3-month Treasury bills	0.375	0.952
9–12-month Certificates of Indebtedness	0.85	1.04
3–5-year notes	1.30	1.61
7–9-year bonds	1.60	1.88
15 years and over	2.24	2.41
High-Grade Municipal	1.97	2.35
High-Grade Corporate	2.55	2.89
Call Loan Renewals	1.38	1.50
Prime Commercial Paper	1.00	1.25
Prime Bankers Acceptances	0.81	1.06

"Free Riding." In spite of the fact that the market has been so jealously watched over by the authorities, federal issues have been employed as vehicles for speculation. A widespread indulgence in the practice of so-called "free riding" developed. By this is meant subscribing for a part of a new issue of federal obligations and selling it at a profit even before full payment has been made for it. This was made possible by the fact that government offerings, as a rule, have gone to a premium quite promptly after their issue. The opportunity to make this quick profit greatly stimulated the subscription to new issues, most of them being heavily oversubscribed. The whole operation was purely speculative, but the Treasury had no way of knowing what a subscriber's intent might be. It could offer its issues on a lower yield basis in order to stamp out "free riding," but it deemed it more important that an issue be well received than that speculators be frozen out. The chief evil in "free riding" probably lay in the fact that it has been practiced by institutional and other investors who should not take the risk involved.

Characteristics of the Market for United States Obligations. First, the federal bond market is the only domestic securities market which is supported by government authorities. As we noted above, the resources of both the Federal Reserve System and the Treasury itself can be utilized to buy federal issues when they show signs of weakening in price and to sell them when an undue rise is in prospect. Whereas a private corporation in floating a loan must take market conditions as they exist, the Secretary of the Treasury is in a position to prepare the government bond market artificially for the favorable reception of a new issue.

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[1] Compiled from *Federal Reserve Bulletin*, January, 1948, p. 75.

Second, although but an insignificant part of the trading in government securities is done through organized exchanges, they all enjoy almost perfect marketability. An order telephoned to a dealer in government bonds can be executed at once with a very narrow spread between the bid and asked prices, usually about 1/16 of a point. Trading in them is exempted from government regulation, including the fixing of margins by the Federal Reserve Board. As a matter of banking practice, a borrower on United States bonds can obtain loans against them up to 90 per cent or more of their market value. Member banks may borrow at their Reserve banks 100 per cent of the face value of a government obligation. Some Treasury obligations are also legal tender for the payment of federal taxes. The Act of 1933, which forced the banks to go out of the business of underwriting and distributing securities, made an exception of the issues of the government and other public agencies. Thus, in addition to a group of large private houses dealing exclusively in government obligations and a larger group of investment houses which maintain government bond departments, the bond departments of important banks form a part of the machinery of distribution. Into these "wholesale" agencies come institutional and private orders placed in the first instance with hundreds of other banks and investment houses.

Third, no other form of obligation has so large and varied an investment appeal.

The following table[2] shows the distribution of ownership of the national debt in billions of dollars on October 31, 1947:

Individuals	65.7
Commercial banks	69.8
Mutual savings banks	12.2
Insurance companies	24.9
Other corporations and associations	20.4
State and local governments	7.2
Federal Reserve banks	22.2
Government agencies and trust funds	33.9
Total	256.3

Pension and other trust funds account for a large part of the holdings of state and local governments and private corporations. The holdings of federal government agencies include the invested assets of the Unemployment Trust Fund, The Federal Old Age and Survivors' Trust Fund, and the National Service Life Insurance Fund.

Although adverse international or domestic news tends to depress the government list at the time, it has shown remarkable recuperative powers, especially where the Federal Reserve Open Market Committee has come to the rescue. The worst that the investor has to fear is not the susceptibility of government bonds to temporary shock but two other factors: (1) the danger of a rise in the rate of interest and an accompanying decline in the market value of high-grade securities; (2) the danger of a serious impairment in the government's credit. The federal budget was unbalanced for more than a decade before Pearl Harbor. With the almost fabulous sums required for winning the war, annual deficits increased and the public debt continued to mount. The post-war experience of other countries, comparable in size and wealth to the United States, demonstrates that our enormous debt is a serious problem. It is entirely possible that government bonds might lose their present superlative standing and undergo a severe decline in price for that reason. However, as we have noted before, the power of the government over private property and income is such that, if the credit of the United States became impaired, corporate obligations would probably suffer an even greater deterioration.

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[2] *Federal Reserve Bulletin*, January, 1948, p. 80.

SUMMARY OF INVESTMENT CHARACTERISTICS OF UNITED STATES GOVERNMENT OBLIGATIONS

FAVORABLE

1. They meet in the highest degree all the usual tests applied to a civil obligation, such as political stability, unlimited taxing power, enormous national wealth and annual national income, great size, diversity of economic interests, high standard of living, moderate debt compared with ability to meet it, and a commendable record for meeting obligations.[3]
2. They have almost perfect marketability and hypothecability.
3. Some of the issues outstanding enjoy exemption from taxation.
4. They fluctuate in price less widely than other bonds not only because they are of prime quality but also because government authorities interfere in the interest of price stability.
5. A prospective purchaser of "governments" is free from the necessity of making a detailed analysis of the quality of his purchase.
6. After he makes the purchase he enjoys a maximum of freedom from care.
7. The obligations of the government are our last refuge in time of great stress. If with its almost unlimited power over private property it cannot maintain its credit, most other fixed-income investments will probably suffer even greater impairment.

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[3] Though the federal government has never actually defaulted on its debts, certain acts of Congress and court decisions relating to the monetary standard have served to nullify contractual rights of holders of government obligations.

8. Government bonds are likely always to be available in large volume even though other comparable investments are scarce.

9. The annual interest requirements of approximately 5 billions normally constitute but a small percentage of the national income.

LESS FAVORABLE

1. The debts of the United States are not secured by specific liens on property or revenues.
2. As a sovereign state it cannot be sued without its consent.
3. The yield on Treasury bills and notes is too small to have much appeal except for commercial banks and other corporate investors.
4. There hang over the longer term bonds the threats of (*a*) a loss of real income through a rise in the price level, and (*b*) a decline in value through a rise in the rate of interest or through a deterioration in the credit standing of the government.
5. The Constitution places no limit on borrowing.

Under conditions such as have prevailed through most of the nation's history, federal bonds have had little appeal to the ordinary investor or to institutional investors other than banks, but the present abundance of government obligations compels us to change our point of view. For people of small means as well as for the more affluent, the government bond provides a most attractive medium especially in times when general insecurity prevails and other avenues of employing one's funds are none too attractive. The list of less favorable aspects of investment in government obligations presents but a feeble case against these issues. High-grade corporate issues offer little more in the way of yield and are just as subject to the menace of inflation and a rise in the rate of interest. Treasury bills and notes have never had a general investment appeal and were not intended to do so.

C. FOREIGN CIVIL LOANS

Types of Foreign Securities in American Portfolios. Two general types of foreign obligations have found their way into the portfolios of American investors. One of these, and the less important, consists of securities issued in a foreign country. They are not payable in American dollars, nor are there any other provisions in the indenture drawn with special reference to their sale in the United States. Loyal sons of the issuing country who reside in the United States and buyers of a type that is attracted by the higher yield which such bonds usually afford make up the principal market in this country. The bonds of Canada have constituted an exception to this characterization of foreign currency obligations. Her proximity to the United States, her high credit standing, and the similarity in economic and political structure have caused American investors to place the issues of the Dominion and its subdivisions virtually on a par with our own civil obligations.

The second type of foreign security held by American investors is the dollar bond, so-called for the reason that interest and principal are payable in American dollars in the United States. Such loans have been floated in large volume through our normal investment channels. The issuing nations, for the most part, have been either relatively young countries which had a wealth of natural resources and lacked capital to develop them or nations which, because of the ravages of war or other serious crisis, had need of capital for purposes of rehabilitation and reconstruction. This second type of foreign obligation has usually been listed on one or more stock exchanges in the United States and has enjoyed a distribution comparable to that of domestic securities.

Peculiar Characteristics of Foreign Loans. First, unless it is especially provided that the principal and interest shall be paid in American dollars in the United States, problems of rates of exchange and transfer complicate investments in foreign securities. For example, an Argentine "peso" obligation, other things remaining the same, will vary in its yield to an American investor with the fluctuations of the peso in terms of the American dollar on the foreign exchange market. In Nazi Germany an obligation payable in Reichsmarks would have suffered from the fact that severe restrictions governed the movement of credits of this sort out of Germany, even where the debtor deposited the full interest payment dutifully in a German bank.

Second, not only do the sovereign rights of a foreign state protect it from suit to enforce debt payment, but also it is much more difficult to secure satisfaction in a distant land with a different language, customs, and laws.

Holders of the bonds of private corporations situated in foreign countries possess the advantage of access to the courts of those countries in case of default, but such proceedings would suffer because they would be conducted in a foreign jurisdiction and any damages collected would be subject to such exchange and transfer restrictions as that jurisdiction might see fit to impose.

Third, countries that have to meet payments of interest and principal on money borrowed abroad can do so only by selling in foreign markets a greater amount of goods and services than they buy. Otherwise they will have to draw on their gold reserves, if they have any, or keep going farther into debt, borrowing more money to service already existing obligations. This aspect of the case constitutes a national problem and as such may seem a far cry from the problems of an individual investor, but if a people desire to enter seriously into the field of foreign investment they must adopt a tariff policy consistent with that desire. Otherwise debtors will have difficulty in obtaining the exchange needed for remitting payments of interest and principal. No country should expect for long to have a heavy favorable balance of trade and play the role of creditor in the field of international finance. One is forced to concede, however, that there is no evidence that this desirable change in attitude is in prospect.

Fourth, most countries with insufficient funds at home are either partially developed producers of raw materials or their resources have been dissipated in war. Under either condition their credit status is often not too good, for both classes are too vulnerable to periods of depression.

Fifth, added to the internal political instability for which certain nations have long been noted is the constant threat of war and invasion which has hung over virtually every part of the globe, particularly in recent years. Countries whose political systems have shown the highest degree of stability for generations and have had an enviable record for meeting obligations have seen both their independence and their credit standing vanish almost overnight.

Sixth, though volumes of data are published by the governments of most countries, the analyst has to make sure that they are dependable before he can rely on them as a basis for judging the merits of issues of bonds. There has been too much doctoring of essential data by certain foreign states.

American Experience with Foreign Loans. Until World War I completely changed world conditions, the United States was one of the principal debtor nations. Foreign investors supplied a large share of the capital with which our railroads were built and our natural resources exploited. European capital was invested heavily, and disastrously, in the bonds of American states, during the pre-Civil War period, and in the obligations of the Confederate States of America. Despite these losses, foreign investors continued, after the Civil War, to seek the higher return afforded in this country. N. T. Bacon[4] estimated that in 1900 more than three billions in foreign funds were invested in the United States, an obligation we could easily service because of our heavy exports of food and raw materials.

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[4] *Yale Review*, November, 1900.

In the meantime, modest beginnings were being made in the role of world moneylender which America was to play after 1918. Strictly speaking, however, the major part of our foreign investments before 1900 consisted of ownership of foreign enterprises rather than of the purchase of securities of foreign governments and their subdivisions. With the turn of the century, offerings of foreign bonds and stocks began to appear in increasing volume in the American market, many of them representing participations by American investment houses in underwritings originated in London or some other foreign money center. Data furnished by R. O. Hall of the United States Department of Commerce to the National Industrial Conference Board[5] place the total of American foreign investments in 1914 somewhere between 2.1 billions and 2.6 billions of dollars.

Europe was still investing large sums in the United States while our investors were being attracted by the opportunities afforded by Latin America. It is estimated[6] that at the outbreak of World War I European investments in the United States were somewhere between 4.5 and 5.5 billion dollars, or approximately double our estimated investments abroad.

The heavy demands on American agriculture and industry imposed by World War I placed the United States in a new position—that of creditor nation—and brought an entirely new set of borrowers into our capital market. In addition to Latin Americans seeking loans for developing their resources, the warring nations of Europe sought credits with which to buy food and munitions. We were destined to become a creditor nation, sooner or later, but the war hastened the transition.

The excess of exports, amounting to 16 billion dollars by the end of 1919, was met largely by the repatriation of American securities and by heavy new loans on the part of American investors and the United States Government. The close of the year 1919 found the United States owing but 2.8 billions of the approximately 5 billions owed to European investors in 1914. On the other hand, there was owing to us some 7.7 billions in privately held foreign debt and more than 10 billions held by our government.

During the five years immediately following the Armistice of 1918, the volume of new issues of foreign securities offered to American investors underwent a decided slump. The crisis of 1920 and the serious readjustments which nations everywhere were compelled to undergo after the conclusion of the peace, created a less favorable atmosphere. By 1924, however, sufficient progress had been made out of the troubled post-war conditions to accelerate greatly the demand for credit in the American capital market. As a consequence, the years 1924 to 1928, inclusive, witnessed the sale in the United States of more than a billion dollars a year in foreign issues. In the banner year, 1927, 265 different issues were distributed, including those of insular possessions, foreign corporations, and foreign subsidiaries of American companies.[7] If from the total of some 11.5 billions of foreign investments of the United States between 1920 and 1931, inclusive, we subtract about 1.5 billions representing refundings of previous issues, there still remains the impressive sum of 10 billions of new investment, expressed on a par value basis.[8] If we add this 10 billions to obligations from the period before 1920 still outstanding we have a total of 15 billions. A little more than half of this sum represented direct investment by American enterprises, and the rest the purchase of securities of foreign governments, provinces, municipalities, and corporations. During the period in question (1920–1931) about 40 per cent of the dollar bonds sold were floated by European borrowers, 29 per cent originated in other countries of North America (principally Canada), 22 per cent in Latin America, and 9 per cent in the Far East.[9]

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[5] *The International Financial Position of the United States,* New York, 1929, pp. 27–28.

[6] C. J. Bullock, J. H. Williams, and R. S. Tucker, *Review of Economic Statistics,* Cambridge, Mass., July, 1919.

As the effects of the world-wide depression of the early 1930's began to make themselves felt, not only did the volume of new loans begin to dwindle but an alarming series of defaults on existing loans also commenced. Our investors in foreign securities had experienced defaults before, when depressions had set in or revolutions had occurred, but they usually constituted only a small fraction of the total amount of our foreign loans and in many instances complete restitution was made within a few years. The post-war depression of the 1930's, however, was so severe and so widespread that debtor after debtor had to serve notice of its inability to collect the revenue necessary to meet its current obligations, or to purchase the dollar exchange required for its transfer, even when funds could be collected at home. As we have pointed out, ability to obtain foreign exchange depends on having a satisfactory favorable balance of trade, which could not be attained during a period of critical disruption of world business. Within the brief space of three years after the collapse came, Argentina alone of the numerous South American debtors was meeting its payments to American bondholders.

One serious problem which holders of defaulted foreign bonds had to face was presented by countries that lacked the desire to meet their external obligations even when ample funds were available for the purpose and the exchange situation was entirely favorable. Some of these nations, while protesting inability to pay, bought exchange with which to repossess their own dollar bonds at a few cents on the dollar.

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[7] See the *United States Department of Commerce Handbooks on American Underwriting of Foreign Securities,* Washington, 1930 and 1931.

[8] Since some of these issues were offered at a discount, the actual amount invested by purchasers would be somewhat less than 10 billions. See Madden, Nadler, and Sauvain, *America's Experience as a Creditor Nation,* Prentice-Hall, New York, 1937, pp. 70 and 78.

[9] *Ibid.,* pp. 76–77.

A similar situation also developed with respect to most of the countries of Central and Southeastern Europe, especially the nations formed by the Treaty of Versailles. Finland and Czecho-Slovakia, however, continued to meet their obligations as did the older countries of Western Europe with the exception of Germany, which began placing obstacles in the way of the transfer of funds abroad with the advent of the Hitler regime. In the Far East, Japan, Australia, and the Dutch East Indies all maintained the service on their dollar obligations.

The general improvement in conditions in the late 1930's enabled delinquent debtors to make some progress in restoring their credit status. A few were able to pay in full, and others remitted a part of the payments due. The organization by American owners of foreign securities of the Foreign Bondholders' Protective Council facilitated the conduct of negotiations with delinquent foreign debtors. Whereas the procedure in the protection of the interests of the several groups in a domestic corporate default and receivership has been considerably systematized and simplified by recent legislation, negotiating with a delinquent foreign debtor is incomparably more difficult. Unless the debtor possesses attachable assets in the United States, action in our courts is of little avail to investors. Consequently, where there is lacking the will not only to resume payments but also to make them available for transfer to the United States, protective organizations, no matter how competent, are greatly handicapped in their efforts.

Nations have made free use of diplomatic suasion or even economic and military coercion in the protection of the business interests of their nationals in foreign countries, but harsh methods, though successful perhaps at the time, are likely to leave a feeling of deep-seated resentment behind. The "good neighbor" policy that has characterized the foreign relations of the United States, and the opposition to "doing anything to help the international bankers," in recent years, entails a very minimum of even diplomatic pressure, much less a resort to sterner measures in behalf of American investors.

World War II and its unfortunate aftermath of profound economic and political disturbances have played havoc with the credit standing of many nations whose record for meeting obligations has always been of the best. In addition to the need for restoring a war-torn economy, they are confronted with serious internal dissension or even the complete loss of their independence. Countries like Finland and Czecho-Slovakia, which had always been most scrupulous with respect to meeting their commitments, lost their appeal as investment outlets as soon as they succumbed to Soviet domination. Even though a number of other countries are meeting the payments on their dollar bonds, only the obligations of the Dominion of Canada and its governmental subdivisions enjoy a high investment rating in the foreign field. Only the return of general economic well-being and a state of healthy international relations will restore the "good old days" when a people can invest safely and profitably on every continent, as did the British before World War I.

There is nothing inherent in the investment process which dictates that the investor should confine his operations to his own country. The disastrous experiences of the 1920's could largely have been avoided had some of our investment bankers and the public been less eager for handsome returns and more diligent about applying the customary tests of safe investment to the foreign loans made in that decade.

D. THE BONDS OF THE INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT

The International Bank had its origin in a conference of 44 nations at Bretton Woods, New Hampshire, in 1944. Its chief purpose, as set forth in the Articles of Agreement, is to assist in the reconstruction of war-disrupted economies and the development of the resources and productive facilities of relatively undeveloped countries. To achieve this purpose it functions: (1) as a guarantor of private loans made in a foreign country, much as does the Federal Housing Administration in the domestic home mortgage field; (2) as a direct lender in foreign countries where private sources of credit are found not to be available. Here it may be likened to the Reconstruction Finance Corporation in the domestic field.

The sources of the Bank's loanable funds are as follows:

First is the 2 per cent of the capital which was required to be paid in gold or in United States dollars and the 18 per cent additional paid in the various member governments' own currencies, provided that a member gives its consent to having this part of his contribution so employed. Unfortunately, only the United States has given its complete assent, and Belgium has granted its permission to lend a part of its subscription to Luxembourg. The failure of other countries to give their consent has resulted in limiting the loanable capital funds to but 725 million dollars.

The remaining 80 per cent of the capital subscription is subject to call if the Bank cannot meet its obligations otherwise.

Second is the Bank's provision for selling its own bonds to private investors and lending the proceeds. This is intended to be the more important source of lendable funds. On July 15, 1947, the first public offering was made. It consisted of $100,000,000 of 2¼ per cent debentures, due in 10 years, and $150,000,000 of 3 per cent debentures, due in 25 years. The bonds were sold at par by a group of 1,700 dealers. Later, the Bank hoped to distribute its obligations in a number of countries, but conditions in 1947 virtually compelled it to confine its first issues to the United States. Most of the larger states of the United States made the bonds eligible as investments for insurance companies and savings banks, and this greatly stimulated their sale. The price rose promptly to 103, but later declined, in sympathy with the general slump in securities prices, to 95. They were rated by Fitch as "AA" and Standard & Poor's as "A."

A moderate volume of these bonds is unquestionably of investment quality for the following reasons:

(1) They are backed by a substantial amount of liquid assets (cash and United States bonds).

(2) They also have the backing of the Bank's other assets (principally loans in member countries, guaranteed by them).

(3) The Bank is required to call on members, if necessary, for all or any portion of the 80 per cent of the uncalled capital subscription. It must be paid in gold, United States dollars, or whatever other currency is needed to meet the Bank's obligations.

Though the bonds are not guaranteed by the United States Government, the chief selling point of the $250,000,000 issue was the fact that, in addition to the 635 million dollars it has already paid, it is liable for 2,540 millions representing the uncalled four-fifths of its stock subscription. Inasmuch as Congress has already authorized this commitment, there need be no doubt about its availability in case the directors of the Bank call for it.

Thus far, the management of the Bank has applied sound conservative principles in the loans it has made. Thorough investigations are required. The purpose must be related to building up the productive capacity of the country in which the borrower is situated. The money must be spent abroad for materials and services not otherwise available. Instead of the proceeds being turned over in a lump sum, the Bank disburses them in the form of "progress" payments. The member country in which the project is located must place its guaranty on the loan.

Progress in economic recovery and a reasonable degree of political stability, domestic and international, should increase the importance of the loan portfolio as backing for the Bank's obligations. The 1 to 1½ per cent annual commission charged each borrower, over and above the interest payment, must be placed in a reserve, which, with the "ploughed-back" profits, should in time provide substantial protection to bondholders.

Even under the present discouraging international situation, the investor will find that the outstanding obligations of the International Bank meet the tests of safety, satisfactory return, and marketability. However, if the Bank's total bonded indebtedness should rise to a point in excess of the liability of the United States Government, and the international outlook has not shown a marked improvement, the existing issues would suffer a loss of market esteem along with subsequent offerings.

SUPPLEMENTARY READINGS

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Lewis, C., *The United States and Foreign Investment Problems,* Brookings Institution, Washington, 1948.

PROJECTS

1. Prepare an analysis of the 25-year, 3 per cent bonds of the International Bank for Reconstruction and Development due in 1972.
2. Analyze one of the foreign bonds listed on the New York Stock Exchange.

CHAPTER 23

Civil Obligations

(CONTINUED)

E. STATE OBLIGATIONS

Characteristics. Although the obligations of the several states of the American Union are commonly grouped with municipal securities, quite as good a case might be made for grouping them with those of the United States Government. The possession of sovereignty enables the states, within their own borders, to exercise virtually all the powers accorded to the federal government so far as incurring debt and levying taxes are concerned. The only important source of revenue open to the federal government and denied to the states is the collection of duties on imports. The various subdivisions of government such as counties, cities, and districts are able to exercise only such powers as the state sees fit to grant them.

The last few years have witnessed a decided trend toward centralization in government. The United States has taken over functions which formerly were the sole property of the states, while the latter in their turn have entered fields of activity formerly reserved to the lesser divisions of government.

The building and maintenance of roads and bridges, the support of schools, and the administration of welfare work are cases in point. This shift has created new revenue problems and modified the nature and amount of state indebtedness. The following list indicates the more important purposes for which the states have borrowed money:

Aid to veterans
Highways
Waterways and harbors
Funding operations
Construction of public buildings
Relief
Aid to farmers
Education

The states have incorporated in their respective constitutions general provisions governing the borrowing of money and levying of taxes. Within the limits laid down by these provisions, the legislature may act.

Most of the state constitutions, however, may be amended without difficulty by popular vote; hence the presence of severe restrictions on borrowing is no assurance that they will not be relaxed at some subsequent election.

The credit of a state, like that of the national government, depends primarily on the extent and variety of its economic resources, the nature, size, and income of its population, the amount of its indebtedness, and its record for meeting its obligations. Domination by extravagant or crooked politicians or susceptibility to "crack-pot" projects will tend to lower the standing of a state's obligations even though the factors we first enumerated are entirely favorable.

State bonds as a class enjoy a standing little inferior to that of federal obligations. As we shall see from our discussion of the record of state debt in the next section, defaults, except for brief periods, seem to be a thing of the past.

Practically without exception, state bond issues are sold to the highest bidder among financial houses, or groups of houses. As we have observed, commercial banks, as well as investment houses, are permitted to engage in the distribution of civil issues. Though the market is "over-the-counter," the obligations of states, especially those with a large volume of debt outstanding, enjoy virtually as free a market as do listed securities. Their normal market consists chiefly of the commercial and savings banks, insurance companies, and wealthy individuals who are attracted by the tax-exemption feature. However, during World War II, when the yield on state obligations fell to a point considerably below that of the bonds of the federal government, institutional buyers shifted to the latter issues.

In addition to the "full faith and credit" obligations issued by states, resort is had to revenue bonds and to warrants issued in anticipation of the receipt of tax payments.

The bonds of a state are exempt from federal taxation, and many of the states exempt their own obligations, but it is not customary to extend this privilege to the bonds of another state. The complete exemption from federal taxation enjoyed by a state bond gives it an advantage over the obligations of the United States. This accounts in part for the fact that there is normally so slight a difference between the market prices of the two in spite of the somewhat higher credit standing of the federal government.

The Record of the States as Borrowers. This is not intended to be an historical treatise, but, since history has a way of repeating itself, the present-day investor should be informed regarding the alternative waves of free spending and caution which have characterized the fiscal policy of our American commonwealths. In our discussion of the federal debt we noted that a policy of extinction was early adopted and, in spite of war and depression, the debt was completely wiped out in 1835. The several states emulated this example to some extent, although the total of state debts increased moderately in the latter part of this period.

Soon thereafter the excesses of the ill-fated Era of Internal Improvements began to manifest themselves. The rapid growth of our industry and commerce had led to a widespread demand for transportation and credit facilities. Large sums were borrowed for building railroads and canals. States engaged in grandiose banking projects and entered on a variety of commercial ventures. As a result, the total of the state debts rose from $46,000,000 in 1835 to $175,000,000 in 1838. When a severe depression set in after the panic of 1837, some states openly repudiated their debts, and many of the others fell into difficulties from which it took years to extricate themselves. A considerable part of the defaulted securities had fallen into the hands of foreign investors who were never able to understand why the federal government felt no responsibility in the matter. In the decade immediately preceding the Civil War there was a milder wave of defaults, the most serious of which was that of Minnesota which, in 1860, repudiated a debt incurred in granting a subsidy to its railroads, but more than twenty years later it redeemed the defaulted bonds at 50 cents on the dollar.

A wave of repudiation comparable to that of the late 1830's was experienced in the South beginning in 1870, when nine southern states repudiated the debts incurred by the "carpet-bag" regimes that followed the Civil War. There followed a nation-wide reaction against the old practices that had periodically brought state credit into disrepute. Restrictive measures were incorporated in state constitutions, and an era of conservatism prevailed. This continued until the close of World War I, when a new wave of spending got under way. This was mainly attributable to extensive state highway and waterway construction and to aid to veterans and farmers. During the decade 1931–1940, while the collections by local units underwent a mild decrease, the broadened activities of the state and national governments caused increases in expenditures of more than 2 billions in each case and made substantial additions to their respective public debts as well, although most of the increase in state expenditures was met by raising additional revenue. State income and sales taxes were widely adopted.

State finance, in spite of long years of subnormal industrial activity, widespread droughts in agricultural areas, and demoralized international trade, was greatly improved. Sounder accounting and fiscal practices were inaugurated, and the respective functions and sources of revenue of states and cities were more carefully delimited.

During World War II and for some time after its close, state and municipal issues sold at unprecedentedly high prices. The principal reasons for this situation were: (1) the marked upward revision in federal income tax rates greatly increased the demand for tax-exempt bonds; (2) state and local projects that involved the flotation of large bond issues were laid aside in deference to the federal government's huge financial requirements.

By 1947, the way was clear for the re-entry of the states and local governments into the capital market. As a result, a succession of large issues for veterans' welfare, housing, schools, public works, and other purposes came on the market. By 1948, this marked increase in supply had caused the abnormally high prices of the war period to decline to the lowest level in six years. As the very high surtax rates imposed on large incomes during the war were reduced, the resulting decline in demand contributed also to the decline in the prices of tax-exempt issues.

An investigation of the credit standing of a state differs from that applied to one of the lesser divisions of government only with respect to the fact that the state possesses broader taxing powers. Therefore the sample analysis of a local obligation given in Section G of this chapter will serve equally well as an illustration of the procedure followed for the obligations of a state.

F. MUNICIPAL OBLIGATIONS

Classes of Municipal Securities. In the preceding section, we pointed out that state governments commonly employed direct and general obligations, tax anticipation warrants, and revenue bonds. Occasional issues, also, are backed both by the income from some revenue-producing project and by a general tax levy, hence are known as "two-way payment" obligations. All these types are employed by municipalities. In addition, the latter issue what are known as special assessment bonds.

Back of the direct and general obligations stands the power of the issuing unit to levy taxes on the persons and property within its boundaries. This is also true of the tax anticipation warrants, which, as their name implies, are sold in order to tide over the treasury until the proceeds of a tax levy are collected. They usually constitute a prior lien on the incoming taxes. The special assessment bond is usually not the general obligation of the whole community but that of some special district created for the purpose of providing the district with new pavement, sidewalks, electroliers, sewers, or some other local improvement. The levies made to pay for the project are made only against the property situated within the special district. Revenue bonds have come to occupy so important a place in municipal finance that we shall deal with them at considerable length farther on in this discussion. Suffice it to say here that they are not backed by the "faith and credit" of the community nor by its power to levy taxes.

A Brief History of Municipal Debt. American municipalities have been borrowing money since long before the Revolutionary War, but municipal debt before 1840 was insignificant compared to the obligations of the states. During the next thirty years, however, the spread of public education and the provision of water supplies and streets were responsible for a heavy increase which brought the total debt from 25 millions in 1840 to approximately 516 millions in 1870, whereas the indebtedness of the states had merely doubled in spite of the spending orgies of the post-Civil War carpet-bag regimes in the South. The states, as we pointed out, learned a bitter lesson and proceeded to impose severe restrictions on their legislatures. Accordingly, when subsequent railroad projects and similar ventures clamored for aid, it was the cities and the federal government and not the states that responded.

During the next thirty-year period (1871–1900), while state debt experienced a marked decline, municipal borrowing increased by approximately a billion dollars. Checked for a time by the extraordinary needs of the federal government during the period of World War I, over the whole thirty-year period (1901–1930) municipal indebtedness virtually doubled each decade, having reached a huge total of more than 15 billions when the full force of the great depression struck in 1932. The rapid growth of cities, together with the development of much more expensive tastes respecting public buildings and parks, pavement of streets, and the introduction of airports, stadia, and other products of a new era, were responsible for most of this increase.

In the 1930's, as we had occasion to observe, the state and federal governments encroached on both the functions of and the revenues available to the municipalities. Furthermore, in its spending programs the United States Government undertook and financed, partly or wholly, projects which would normally have been financed entirely by local borrowing. As a result, new municipal borrowing did not resume the pace of the predepression period.

As we noted in our discussion of state borrowing, the extraordinary demands of the federal government in connection with World War II caused a virtual cessation of municipal financing and a consequent rise in the market prices of existing obligations. After the war, a flood of new issues appeared, as the resumption of long-deferred maintenance and the construction of new projects called for heavy expenditures.

Bond issues for schools, municipal utilities, airports, street improvements, and the like appeared in large volume and restored the subnormal yields of the war period to percentages that placed them on a competitive basis with Treasury Bonds and high-grade corporate issues.

Municipal Defaults. We ordinarily think of defaults in municipal obligations as coming in waves that accompany serious business depressions. This is largely true, but a century's experience with these unfortunate occurrences shows that they are not entirely confined to periods of hard times. Periods of overextension of credit to aid developments outside the regular function of municipal government have caused the most serious trouble. Of the approximately 1,000 municipal defaults of which we have a record, only an insignificant number show a deliberate desire to repudiate the debts in question.

No section of the country has a perfect record, although New England has always been relatively free from defaults. The South and the Middle West have contributed the largest number of delinquencies, but certain individual states in these areas have had much better records than their neighbors. The worst waves of default have occurred in the depressions following the crises of 1873, 1893, and 1929.

Considering the many thousands of individual obligations that have been outstanding, the actual final losses on municipal bonds have been negligible. General obligations incurred for such purposes as the building of schools and other essential public buildings or the carrying out of a normal program of construction of public works have rarely caused a loss to investors. The chief offenders have been irrigation district obligations, railway aid bonds, issues of special assessment districts, and obligations resulting from pouring inordinate sums into street improvements at the behest of subdivision promoters during a real estate boom.

Outstanding examples of the latter evil occurred during the great real estate boom of the 1920's. Special assessment bonds were issued by city councils controlled by real estate promoters. Debts of more than $1,000 per capita were amassed within a space of a half-dozen years. When the boom collapsed, impoverished taxpayers were unable to provide the funds for servicing the mass of indebtedness. In one instance, promoters sold to the city at a fabulous profit projects that they had financed. In so doing they saved themselves but saddled an impossible burden of debt on the community. Out of a total of municipal obligations (including state issues) of approximately 19 billions outstanding in 1932, bonds of the principal amount of around 2 billions fell into default during the depression. The delinquencies on these issues aggregated some 200 million dollars or about 1 per cent of the obligations outstanding. Eighty per cent of the issuers were situated in ten of the forty-eight states. In eight states no defaults on the part of any public agency occurred. Subsequently, some of the more important debtors like the City of Detroit and the State of Arkansas make good their delinquent payments.[1]

Some progress has been made in the development of protective and remedial measures for municipal defaults, but in the country as a whole there is still much room for improvement.

When the issue is of considerable size and widely held, the municipal bond houses which purchased it customarily take the lead in the formation of a protective committee to negotiate with the debtor and, if legal action is taken, prosecute the case on behalf of those bondholders who have deposited their holdings with the committee. The principal obligations of private enterprises are automatically matured if an interest payment is not made when it is due. This is not true of municipal issues. Usually the first legal steps are to establish the claim through securing a judgment and then to seek a writ of mandamus from a court with proper jurisdiction. This is directed to the officials of the defaulting governmental unit and orders them, on pain of being in contempt of court, to levy the necessary taxes for the payment of the amount due. However, when the unit in question has already levied taxes up to the limit allowed by state law, such a step would be of no avail. Where such a limitation is a mere enactment of the legislature, that body can, and sometimes does, permit the issuer to exceed the limit to the extent necessary to make good its delinquency; but, if the limitation is incorporated in the state constitution, change is much more difficult.

Some states forbid the attachment of any private or public property to satisfy the judgment obtained by holders of defaulted municipal debt, although most of the others will not allow private property to be attached. In the New England states, however, bondholders may secure execution against the property of private individuals in the defaulting district. It is generally recognized that such a remedy is most unsatisfactory, so it has seldom been employed.

Compliance with a court's order to levy the added tax does not usually prove efficacious. In nearly every instance the community is in a badly depressed condition. Consequently a new levy of taxes merely adds to the delinquencies on the part of the taxpayers.

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[1] Halsey, Stuart and Company, *The Investment Merits of Municipal Bonds,* Chicago, 1937, p. 41.

In the case of special assessment bonds, relief measures are confined to efforts to seize any money on hand in the city treasury belonging to the special district, to enter suits against those property holders who have failed to pay their assessments, or to institute mandamus proceedings to compel city officials to carry out the duties imposed on them in connection with the issue.

Holders of defaulted municipal bonds have at times sought to have the debtor declared insolvent and a receiver appointed, but, unless the state law specifically sanctions such an action, it is practically always refused by the courts.

The sorry situation in which many governmental units found themselves in the depression of the 1930's led a number of the states to provide various sorts of remedies. Since the limitations of a work of this sort do not permit detailed discussion, a mere summary of the types of measures adopted will have to suffice.[2] First, the legislative permission necessary for municipal receiverships and resort to the machinery of the federal Bankruptcy Act was granted. Second, states came to the rescue of embarrassed communities by taking over certain of their functions or supplementing their revenues with state funds. Third, the laws governing the refunding of municipal obligations were strengthened. Fourth, defaulted bonds and their coupons were made an acceptable medium for the payment of the delinquent taxes to the defaulting community. These can usually be obtained by the taxpayer at a greatly reduced price and their acceptance results in a corresponding reduction in the total debt. Such a device, however, works a great hardship to a city whose treasury is bare. Though it may settle the delinquent part of its indebtedness, it does not provide revenue for current operations or for other debt service. Furthermore, it lures bondholders into taking heavy losses on obligations which may in time be met in full.

Although the federal courts have for generations had an important part to play in municipal defaults, until recently the legislative and administrative branches of the government had taken no official notice of this problem. The Reconstruction Finance Corporation, organized in 1932, has made a number of loans to defaulting governmental bodies, and in 1934 the Federal Municipal Debt Adjustment Act was passed, but it was later declared unconstitutional.

This was most unfortunate since a combination of up-to-date and efficient bankruptcy procedure under federal jurisdiction and the creation of a state board or commission to have jurisdiction over municipal defaults would seem to offer the greatest promise. Although the large cities are qualified to supervise their own debt problems, there is much to be said for a policy, already adopted in some states, of creating a state board or commission to have jurisdiction over the fiscal programs of smaller units whose officials need the counsel of experts in so intricate a field as municipal finance.

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[2] An excellent treatment of the whole subject may be found in A. M. Hillhouse, *Municipal Bonds*, Prentice-Hall, New York, 1936.

Better still, so far as the future is concerned, would be effective measures aimed at the prevention of municipal defaults. The remainder of the states should follow the example of those which have subjected their laws governing municipal financing to thorough revision and codification. This revision should be designed to prevent a repetition of the carelessness and the excesses which have characterized the borrowing of money and the making of provision for the payment of the interest and principal. This, of course, is just one phase of the whole problem of sound budgetary accounting and tax collection practice by public agencies.

In spite of the large number of defaults of the decade of the 1930's, the little more than 1 per cent of all state and municipal debt which they represented is a much more favorable record than the 6 per cent experienced in the field of public utilities, the 16 per cent in railroad obligations, and the 38 per cent in foreign bonds. Then, too, the percentage of recoveries was much greater.[3]

The Distribution of Municipal Securities. In the chapter dealing with the machinery of investment, the discussion centered almost wholly around the distribution of the obligations of private corporations. The mechanism and practices in the municipal field are sufficiently specialized to merit brief special treatment. It is customary, and in some states required, that municipal offerings shall be purchased by competitive bidding, usually by individual banking and investment houses or groups of these houses. Competitive bidding makes municipal finance relatively impersonal so far as relation between banking houses and issuers is concerned. Though municipalities consult with bankers about their problems, there is not the close and continuing connection that exists between a corporation and an originating house. Just as careful analysis of the credit standing of the borrower is necessary for public agencies as for a private corporation, but, since the former are much more limited with respect to the type of security they are permitted to sell, the banking houses from which they seek advice are confronted with a much simpler problem. The issuer usually accepts banker judgment with respect to the rate of interest which securities of this type will have to bear in order to find an acceptable market. Naturally, the offerings of a large well-known issuer that is constantly in the market require less scrutiny than those of an obscure school district. State and municipal laws lay down so many detailed requirements covering every step of the process of borrowing that recognized attorneys versed in municipal law have to examine minutely every step taken and vouch for complete compliance with the law before municipal bond dealers will purchase the offering. This virtually establishes the legality of the issue and avoids the likelihood that some taxpayer or body of public officials will seek to evade payment, taking steps to have them invalidated because of a flaw in the procedure. It is much easier to take every precaution to avoid errors than to correct them after they have occurred. An act of the legislature or even a constitutional amendment might be necessary if the municipal officials exceeded their power in issuing the bonds. However, if some minor point, only, were overlooked, the remedial process would be comparatively simple, and any borrower that sought to use it as grounds for repudiation would run afoul of a long line of adverse court decisions. Both state legislatures and the courts, in fact, have gone a long way toward eliminating technical flaws as grounds for repudiation.

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[3] Charles Clark, *Barron's*, July 29 and August 12, 1940.

The issues of small school districts and municipalities are purchased by a single house or bank, whereas an issue running into many millions is bid for by large syndicates or groups of dealers.

As has been observed in an earlier chapter, the spread between the amount paid to the issuer and the price received from investors is much narrower than that which prevails in private finance. The profit usually ranges from 1 per cent down to a fraction of that amount, and this is split with retail dealers on that part of the issue which syndicate members sell to them.

The exemption of municipal bonds from the requirements of the federal securities laws relieves the issuer and the bankers of the necessity of preparing costly prospectuses. So great a part of a municipal offering is absorbed immediately by wealthy individuals and by the insurance companies, banks, and other institutional buyers that the task of distribution is much simpler than that of making contact with thousands of prospective purchasers, as is often the case with a large corporate issue of bonds or stock.

Naturally, the twenty $1,000 bonds issued by a village to finance a town hall and fire station will have a narrow market compared with a well-known issue held by hundreds of investors. If the holder of the village bonds desired to sell them, he might encounter considerable difficulty in finding a buyer. For that reason such issues are often taken up by a local or nearby bank and held to maturity. Although municipal bonds are rarely listed on an exchange, the larger issues enjoy fully as good marketability as they would if they were so listed. Certain houses are always prepared to buy certain issues and circulate "bid" and "ask" quotations to potential customers.

Municipal bonds are usually sold on a "yield" basis. The 3 per cent water bonds of the City of X, maturing serially from 1949 to 1979, will be quoted at yields varying from, say, ½ of 1 per cent to 2⅞ per cent, according to the length of time they have to run. The three factors most responsible for marked fluctuations in the yield of municipal bonds as a class are changes in the level of interest rates, changes in income taxes, and severe shocks to public confidence like the orgy of failures in the decade of the 1930's.

The short-term issues will find their way into the portfolios of banks or buyers who are seeking only a temporary employment for certain funds. Also, desire to avoid the risk of loss through an upward shift in interest rates impels some buyers to hold the shorter term issues at times when rates are very low.

Municipal bonds as a class are on the "legal" lists of all the states. However, as we have seen, some of the states define rather strictly the qualifications which such bonds must meet. As a class, they are in demand as security for the deposit of public funds. Like state bonds they are subject to inheritance, estate, and gift taxes but exempt from federal income taxes. Likewise, within the state of the issuer, exemption is usually granted from state and local taxes, but the obligations of local governmental units of other states are taxable in virtually all the states.

Tests of Soundness in Municipal Bonds. Since municipalities are not operated for the sake of producing profits, the analysis of municipal obligations assumes a form somewhat different from that employed with corporate securities. In the section that follows, there is presented a detailed sample analysis that will serve to outline more fully than we shall attempt to do here the tests applied to municipal credit.

For the purpose of rounding out this general discussion, however, without undertaking to indicate by the order of presentation the relative importance, we enumerate here the chief considerations in an appraisal of the securities of a municipality. First is the question of the quality of the population and the prevailing standards of integrity—its record for meeting its obligations. Second are the kind and variety of its economic resources—its source of taxpaying power. Third is the kind of city government it possesses—the nature of its municipal structure and the caliber of its officials. Fourth are the legal provisions that exist respecting municipal debt. Fifth are such matters as the state of the municipal finances, including the amount of debt and the schedule of maturities, its comparison with taxable wealth and revenues, the state of the annual budget, the amount of overlapping debt, and the percentage of delinquency in tax collections.

G. SAMPLE ANALYSIS OF A CIVIL OBLIGATION

For an illustration of analysis suitable to civil obligations we have selected a $4,000,000 issue of bonds of the Metropolitan Water District of Southern California, dated March 1, 1948, and maturing serially.[4]

The Nature of the Project. The Metropolitan Water District of Southern California was created in 1928 under the state Metropolitan Water District Act as an independent subdivision of government. Its function is to impound water from the Colorado River, bring it by aqueduct to a storage reservoir, soften it, and deliver it wholesale to the member communities that comprise the District.

The Water District embraces a number of larger communities of Los Angeles and Orange counties and the San Diego County Water Authority. New member communities may be added, and existing members are permitted to withdraw.

The members, with the exception of the City of Los Angeles, depended, in the past, on local underground water and the runoff from nearby watersheds. Los Angeles, on the other hand, found it necessary some years ago to construct, at great expense, an aqueduct for the purpose of bringing in a supply of water from the Owens River and later from Mono Basin in the southern Sierra Mountains. The rapid growth in population and intensive development of agriculture, coupled with an influx of water-consuming industries, made it evident that a new and ample source of water must be found. Even acting collectively, the smaller cities could not shoulder the heavy financial burden involved in bringing water from some distant source, but with the enormous taxable wealth of the City of Los Angeles back of such a project the financial problem could be met with relative ease. Although the existing water supply of Los Angeles was adequate at the time, there was needed an insured source of water for the inevitably larger demands of the future.

[4] In this and subsequent illustrations of analytical procedure, we shall avoid hypothetical discussions and employ instead actual examples chosen for their usefulness in the clarification of important points. Each of our conclusions is thus dated, and some may subsequently prove invalid, but the advantages to the student of discussion of practical examples are believed to justify this method. In any event, it is desired to emphasize the technique of analysis rather than conclusions about specific securities, which must be subject to constant review.

In 1933, the District began the task of building a dam on the Colorado River, a 242-mile aqueduct from the dam to a storage reservoir near Riverside, a water-softening plant, and pipe lines to the storage reservoirs of each of the member communities. The main task was completed in 1941, but in 1944 a pipe line was built to serve nearby communities along the coast to the south of Los Angeles. In 1947, a connection was made with the system of the San Diego County Water Authority. Because of its extensive stake in that county, the federal government constructed the necessary connecting aqueduct at a cost of $14,000,000, to be repaid without interest, one-half by the San Diego Authority and one-half by the Metropolitan Water District, at the rate of $500,000 annually.

The District is entitled to 36 per cent of the firm power produced at Hoover Dam in Nevada. Power is needed for operating the pumps required to raise the water over elevations along the route of the aqueduct, but 36 per cent is considerably more than is needed. Inasmuch as it must pay for the entire amount, the District has contracted to sell the excess to the City of Los Angeles and to two privately owned power companies.

The administration of the District is in the hands of a board of directors appointed by the respective executive heads of the member communities. Each community is entitled to one director, with one additional director for each $200,000,000 of assessed valuation. Members have one vote for each $10,000,000 of assessed valuation, but no member may have more than 50 per cent of the total voting power. The Colorado River Compact of 1922 allocated 7½ million acre-feet of water per annum to the Upper Basin states—Colorado, New Mexico, Utah, and Wyoming—and a like amount to the Lower Basin states– Arizona, California, and Nevada. The latter group is permitted to increase its quota by 1 million acre-feet if the volume of water in the river permits.

The three Lower Basin states have not been able to reach an agreement as to the allocation of their allotment among them. This is an important matter and should be settled amicably by these states or decided by the federal Supreme Court.

In a treaty with Mexico ratified by the United States in 1945, over the vigorous protest of southern California, Mexico was permitted to withdraw from the Colorado River up to 1½ million acre-feet annually, in spite of the fact that her maximum consumption had not exceeded 750,000 acre-feet.

If all the allocations made to date are added together, they exceed considerably the volume of water normally available.

The Metropolitan Water District's right to water impounded in Mead Lake at Hoover Dam is subject to an agreement reached among seven districts of California. The Metropolitan District, with the share of San Diego, has an allocation of 1,655 cubic feet per second or about 1,200,000 acre-feet. Though this allotment is several times as large as that required at the present time, it is obvious that it must be protected from constant additions to the list of allocations if the District is to have an assured supply in the years to come.

The Issuing Unit. The fifteen member communities, including the San Diego County Water Authority, at the time the bonds under analysis were issued, had a population of 3 million and an assessed valuation (one-half of actual value) of about 3.5 billion dollars. Los Angeles County ranked first in the United States in value of agricultural products as well as in the production of motion pictures and aircraft. Petroleum refining, tire manufacture, automobile assembly, clothing manufacture, and furniture production each represented a sizable part of the nation's output in these lines. A wide variety of other industries had been or was in the process of being established.

With respect to other standard criteria (retail sales, per capita wealth, percentage of inhabitants filing income tax returns, and value of agricultural and industrial production), the District as a whole was well above the national average for comparable metropolitan areas.

The addition of San Diego County increased the population by nearly 400,000 and the assessed valuation by more than $300,000,000. San Diego also was an important producer of aircraft and the seat of extensive naval installations. Both San Diego and Orange counties shipped large quantities of produce to the eastern markets. Transportation facilities in the District, by water, rail, highway, and air were good, the climate was attractive and the soil productive. Periods of deficient rainfall constituted one of the important hazards, which called for costly measures in order to provide the necessary water and power.

The District's Tax Situation. It was obvious that a project designed chiefly for the future needs of an area could not be self-supporting for some years to come. Consequently, it was provided that the District's officials should have the power to levy taxes on all taxable property within their jurisdiction. There is no limit to the rate that can be imposed for debt service or sums owing to the federal government, but for operating expense the levy must not exceed 5 cents per $100 of assessed valuation.

The tax is included in the taxpayer's regular bill, and he is subject to the same penalties and liens as are imposed on persons delinquent in their other taxes. Member communities have the right to pay the District lump sums out of their treasuries in lieu of having their property owners subjected to the tax. Several cities in the District are paying all or a part of the amount out of water revenues. The tax levy imposed on the member communities depends chiefly on four factors: (1) the extent to which the members have to supplement other sources of supply with water bought from the district; (2) the size of the bonded debt that will mature in the next fiscal year; (3) the changes in the assessed valuations of the constituent communities; and (4) the shifts in operating costs.

In the earlier years, when no bond maturities had to be met, the tax levy was light. It rose to a maximum of 50 cents per $100 of assessed valuation in 1945–46, but had receded to 35 cents in 1947–48. This decline can be attributed to the addition of San Diego County's large assessment roll, to subnormal rainfall, and to substantial increases in assessed valuation in Los Angeles and Orange counties.

When a new community joins the District, it is required to pay back taxes with interest, but it is permitted to spread the payments over a thirty-year period. Likewise, if a community should withdraw, it must pay its share of the debt that existed at the time of withdrawal, though property constructed after that time would not have to contribute.

A considerable number of smaller cities in the area have not as yet joined the District, but the steady depletion of local sources will, sooner or later, compel them to seek admission. This will spread the debt burden and the costs of operation over a larger total of assessed valuation.

The Income Statement of the District for the year 1946–47 reveals the extent to which dependence must be had on taxation. In order to be prepared to meet the steady maturities of the serial bonds, the District officials collect in taxes sums considerably in excess of current deficits and build up reserves with the additional amounts obtained.

Receipts from Sales of Water	$ 910,845
Other Income	309,686
	$1,220,531
Operating Expense	1,675,786
Operating Loss	$ 455,255
Cost of Unused Power	818,907
Bond Interest	7,254,357
Depreciation Charge	255,289
Total Net Loss	$8,783,808

Tax delinquency in the District varies with economic conditions. It rose to a high point of 12 per cent in 1932–33 but has fallen to less than 3 per cent in the years since Pearl Harbor. Except for current delinquencies, back taxes still unpaid are insignificant.

The Debt Situation. A proposed bond authorization must receive a two-thirds vote at an election in which all the member communities participate. At the only election at which such a proposition appeared on the ballot, that of 1931, the District's officers were authorized to issue bonds to the extent of $220,000,000. Only some 180 millions were actually sold, and this amount had been reduced by approximately $750,000 in maturities. However, when a part of the water system of Pasadena was acquired, the District had to assume a debt of over 6 millions that stood against the property. With the $7,000,000 of noninterest-bearing debt due the United States for the District's half of the cost of the San Diego aqueduct, total obligations amounted to some 184 millions, including the $4,000,000 of bonds of March 1, 1948, which are the subject of this analysis.

It is important to ascertain not only how heavy a debt load was imposed by the outstanding Water District bonds but also how great was the total debt burden of the communities comprising the District.

As of March 1, 1948, the entire tax-supported indebtedness of the member communities in the District (municipal, school, flood control, harbor, and the like) amounted to some 5 per cent of the value of their assessable property, or about $132 per inhabitant. The Water District debt loomed rather large in the total, amounting to about 44 per cent. On a per capita basis, this debt burden was moderately higher than the national average of metropolitan communities, but as a percentage of property value it was considerably lower.

The sale of bonds by the District was challenged in the state courts of California but was validated by the State's Supreme Court in Metropolitan Water District *v.* Burney.[5]

It is required that all bonds be of the serial variety, with the first retirements at not more than fifteen years and the final retirements at not more than fifty years. It is unlawful to offer a new issue at less than par and at an interest rate of more than 6 per cent. The debt limit is 15 per cent of the assessed valuation of the property in the District. The bonds must be sold through competitive bidding. Any further issues would probably have as their purpose the replacement of matured bonds, until such time as it was necessary to enlarge the District's physical plant. The storage dam, tunnels, and aqueduct were built to accommodate the full capacity of the project, but, in 1948, pumping plants and pipe lines provided for only one-half of full capacity.

The bonds were exempt from personal property taxes in California and from the federal and California state income taxes. They were a legal investment for savings banks and trust funds in California. The

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[5] 215 Cal. 582.

$4,000,000 issue we are considering bore interest at 2¾ per cent. The schedule of maturities was: $80,000 in 1949; $140,000 per annum thereafter to the final maturity date of March 1, 1977. It was sold to a syndicate for 102.13 and reoffered to the public to yield from 1 to 2.7 per cent. It was given an Aa rating by Moody. The bonds were not listed but enjoyed a wide over-the-counter market.

Conclusion. The 2¾ per cent serial bonds of the Metropolitan Water District of Southern California were an excellent risk. The yield was attractive for bonds of that quality, and marketability was good. Until such time as the receipts from the sale of water provided adequate funds for the payment of interest and current maturities, the District's unlimited power to levy taxes afforded the bondholder strong protection. The several member communities had a prime credit rating because of their large per capita wealth and record of meeting civil obligations. For persons who were subject to a high income tax rate, the return on these bonds was especially attractive.

H. REVENUE BONDS[6]

General Characteristics. The recent extensive increase in the employment of revenue bonds by governmental bodies warrants this somewhat detailed discussion of their nature and investment qualities. As we have previously indicated, revenue bonds are used to obtain funds with which to build, purchase, or expand income-producing properties such as toll bridges, traction lines, water, light, and gas plants, and a variety of other enterprises. These bonds are not the obligation of any group of taxpayers. The funds from which interest and principal are to be met must be obtained solely from the revenues derived from the project in question. Like users of the services provided by privately owned utilities, the patrons of municipal plants are expected to provide the means by which the indebtedness incurred in their creation will be discharged.

Some revenue bond issues have been backed by a mortgage on the property of the utility for which the debt was incurred, but this is a precaution of doubtful value. If the bondholders had to take over the enterprise and operate it as a private concern, they would probably be faced with the same difficulties that prevented it from earning its fixed charges under public operation. In addition, the private management would have a tax burden to meet from which their predecessors had been exempt. If they dismantled the plant, instead of continuing to operate it, only a small part of the investment could be recovered. However, in spite of all these weaknesses, the mortgage does possess a certain amount of nuisance value, inasmuch as the taking over of the property would cause embarrassment to the municipality.

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[6] For a comprehensive work on this subject see J. F. Fowler, *Revenue Bonds,* Harper & Brothers, New York, 1938.

Revenue issues enjoy the same immunity from taxation as that accorded to direct and general obligations of governmental agencies, but their position in this regard is less secure. The managements of private utilities complain that published comparisons of the results obtained under public ownership fail to take into account tax exemption and other subsidies enjoyed by a public agency. Of late, because of the great hardship imposed on the tax-supported activities of a municipality which the removal of a utility from the tax rolls entails, some publicly operated utilities are required to contribute to the city treasury a sum comparable to that formerly paid in taxes.

A broad interpretation of the term "revenue bond" would include not only enterprises that charge each user on the basis of the specific service rendered to him but also obligations that are met solely by collecting taxes from the whole group of users. The outstanding example, of course, is a highway built and maintained out of the revenues derived from taxes on gasoline and motor vehicles. A gasoline tax not only spreads the burden approximately in accordance with the extent to which the highways are used but also reaches nonresidents of the state or other area who have benefited from it. The charges levied for the use of a toll road or toll bridge, of course, are even more equitable in that they both reach nonresidents who benefit by them and fall only on actual users.

Some parts of the United States are still suffering from a plethora of special districts created to perform some particular function and vested with power to levy taxes. This has resulted in a tangle of overlapping jurisdictions and a total tax burden beyond reason. Some states also have specifically exempted obligations incurred in connection with public ownership ventures from the debt limits imposed on municipalities without at the same time freeing the taxpayers from the necessity for making up the deficits incurred by these projects. As a consequence, if the venture proved to be incapable of self-support, it became an added burden to the property owners of the community.

Neither the creation of special tax assessment districts nor the practice of exempting municipal utility obligations in calculating the debt limit is as satisfactory to a community as the placing of these issues solely on a revenue basis. However, when there is every likelihood that an enterprise will be fully self-supporting, it would be cheaper to finance with tax bonds because of the lower interest rate they command. From the selfish standpoint of the investor, of course, the backing of income from operation with that from a tax levy lends an added factor of safety, but where this liability is assumed for an enterprise that cannot support itself, an unwarranted strain is imposed on the general credit of the community.

History of Revenue Obligations. Revenue bonds have been employed in Great Britain for a long time, and plans embodying the same general idea were followed in isolated instances in the United States. It was not, however, until the 1890's that the first outright revenue bond issue appeared in the United States, in Spokane, Washington. From that beginning, the idea spread over the country. The rapid spread of public ownership of utilities beginning with 1930 has been accompanied by an extensive resort to the employment of revenue obligations. The use of revenue bonds enables communities to incur the necessary additional debt and still not violate the limits set by state law. In some cases where such legal barriers stood in the way of a municipality, the legislature has created a special "Authority" to undertake a public project and has vested it with power to incur debt and to charge such rates for service as would provide amply for cost of operation, bond interest, and debt retirement. The principal undertakings built and operated, thus far, by these specially constituted bodies have been bridges, tunnels, and port facilities.

Inasmuch as public ownership has proceeded farther in the case of water supply than in any other form of public service, it is not surprising to find that, in respect to the number of issues, water revenue bonds far exceed other types. However, the creation of costly bridges and tunnels and the entrance of several large cities into the production of electric power have greatly overshadowed the importance of water bond issues so far as dollar volume is concerned.

Until recently, revenue bonds had not had much vogue in the investment market. Earlier issues were small and were absorbed, as a rule, near their point of origin. Since 1930, they have become widely and more favorably known. In the debacle in municipal finance in the early 1930's, service on revenue bonds continued in instances where tax-secured obligations of the same governmental body were allowed to go into default. Of course, revenue obligations suffered from the same paralysis of the investment market as afflicted other types of security during the great depression, but they possessed the advantage of an artificial market in the shape of the Public Works Administration. In order to stimulate recovery, large advances were made by this agency to states and other governmental bodies, through the device of purchasing their obligations, a large percentage of which were revenue bonds. These issues were turned over to the Reconstruction Finance Corporation, which later disposed of them through private channels. The latter organization also purchased some revenue bond issues directly from the issuers.

Business recovery in 1935, abetted by the growing familiarity with revenue obligations resulting from their sale by the Reconstruction Finance Corporation, revived the new-issue market, which had been in the doldrums since 1931. Since then revenue bonds have constituted an important percentage of state and municipal offerings.

Defaults and Remedies. The prospective investor in revenue bonds, as in any other type of security, must consider the unpleasant question of the remedies he may use if the issuer fails to live up to the terms of the indenture. The procedure has by no means been standardized as yet, but the following are the protective devices most commonly used.

First, as in other "municipal" issues, the bondholders by the processes of mandamus and injunction may compel the officers in charge of the project to live up to the terms of the indenture or be in contempt of court. If, however, the enterprise has failed to meet the service on its debt because it had insufficient patronage, these writs will be of little avail.

A little earlier we indicated that some revenue bonds are covered by a mortgage. Under such circumstances the holders have the right of foreclosure, but, as we pointed out at that time, this is of doubtful value.

Even when there is no mortgage, a number of important revenue bond projects provide that the bondholders may secure the appointment of a receiver to manage the enterprise and apply the receipts to paying operating bills and to the service of the debt, but, of course, receivership is always expensive. As with private corporations that have fallen into difficulties, if the receiver is unable, with the aid of the court that appointed him, to restore the business to solvency in any other way, resort is had to reorganization with the usual modification of the rights of the several parties at interest. Such modification can at times be made in some issues without resort to reorganization. All that is required is the consent of a stipulated percentage of the bondholders.

There is always the prospect, which has actually been realized in occasional instances, that a city, for example, would come to the rescue of a waterworks or electric plant that had fallen into difficulty and supply the amounts needed to meet interest or principal payments, even when no legal obligation to do so existed either in reality or by implication.

The Market for Revenue Bonds. So long as revenue bonds continue to enjoy tax exemption they will have an advantage over the obligations of similar utilities under private ownership, but thus far their yields compare favorably with those of private utility bonds. The market for them is quite similar to that enjoyed by the general obligations of governmental bodies; that is, persons of wealth, banks, and insurance companies are the principal buyers. Their slightly better yield, however, tends to give them a somewhat broader appeal than the general obligations. Marketability is still somewhat hampered because revenue bonds generally have not been made legal investments for savings banks, life insurance companies, or trustees of estates in some of the more important states. On the other hand, exemption from taxation gives them an advantage over the obligations of comparable privately owned utilities which may be on all the "legal" lists.

The same types of dealers we described in connection with our discussion of other civil obligations not only conduct the distribution of revenue bonds but also help to maintain an over-the-counter market for them. Since revenue bonds, like all other public issues, are exempt from the requirements of the federal Securities Act and the Securities Exchange Act, the issuer and the investment bankers are relieved of much labor and expense. Purchasers, however, receive the protection afforded by the common law against misleading or inadequate information.[7]

Investment Desirability. Extensive use of revenue bonds is so recent that this type of obligation has not fully reached the place in investor esteem that it deserves. That they do not, as a class, deserve to be relegated to the category of "speculative bonds" has been demonstrated by their behavior in the great depression of the early 1930's. Numerous instances occurred in which the citizen continued to pay his utility bills and allowed his taxes to become delinquent. As a result, the waterworks and other publicly owned enterprises were able to meet the interest on their bonds when the city was short of the funds needed to service its general obligations. In these days, when increasing resort is being made to the revenue-bond type of financing, enterprises that cannot stand on their own feet and therefore require tax support are open to serious question. However, as we have already indicated, when there is no question about the ability of the project to pay its own way, the investor should regard the use of tax-supported bonds as a sign of wise management. Resort to revenue bonds merely as a means of incurring debt beyond what the law allows the issuing governmental unit to carry does not make for sound municipal credit. Too often a public-ownership-minded administration will use the revenue bond lavishly to provide a costly set of facilities which duplicate those of a private utility that is out of favor at the time.

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[7] Recent decisions give broad definition to the protection thus afforded. See Equitable Life Insurance Co. *v.* Halsey, Stuart & Co., 85 U.S. 631, March 3, 1941.

The revenue bond has already acquired a valuable place in the field of finance, but this could easily be lost by its use in ill-advised public adventures into the sphere of business enterprise. The investor should make sure that his covenant with the issuer commits the latter to fixing such rates as are calculated to cover both operation and debt service with a margin of safety to spare. He should also consider the possibility of competition and whether anything in the economic situation is unfavorable to continued successful operation. Finally, he should make sure that proper accounting practices are followed so that earnings are real and not the result of juggling.

In his analysis of a municipally owned enterprise, the investor should follow a procedure similar to that which we suggest in Chapter 26 for a privately owned and operated utility, but certain minor differences in emphasis should be made. First, the chief objective of the latter is maximum profit to its stockholders, whereas the former's principal goal is minimum rates to consumers. Consequently, the margin of income in excess of fixed charges is not so significant as long as coverage is adequate. Second, whether "debt to plant" is 40 per cent, 50 per cent, or some other percentage is also of no significance in a publicly operated utility, since, as a rule, the bondholder has no lien on anything but revenue and the city has control over rates and competition.

Of much greater consequence to the investor is the portion of the indenture in which the issuing public agency pledges itself to maintain such a schedule of charges as will provide fully for operation, depreciation, and debt service. In a number of projects a certain percentage of the revenue is specifically pledged for the purpose of meeting the last-named charge against earnings. The setting aside of such a fund for debt service should provide for a margin over the actual requirements, to be paid into a reserve fund in good years and to serve as a means of keeping up the full payments in periods of depressed earnings.

When some types of projects like a water, light, or gas plant are acquired from a private company it is relatively easy to project the earnings into the future, but when a new tunnel or bridge is under consideration the engineers' estimates of probable traffic at various rates of toll may prove by later experience to be badly out of line. Therefore, other things being equal, investment quality of revenue bonds varies directly with the predictability of the income from the project. Then, too, a municipal water, power, or gas plant is not likely to encounter competition, whereas a competing tunnel or ferry line may seriously cut into the earnings of a bridge.

The quality of management is of great importance, just as it is for private corporations. If the administration is honeycombed by politics or is inefficient for any other reason, great potential earning power may be of little avail.

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PROJECT

Select one of the bond issues of your state or of some important municipality, district, or "authority," and subject it to an analysis similar to the one given in this chapter.

CHAPTER 24 Industrial Bonds

Industrial Bonds Hazardous by Nature. As an illustration of specific application of the tests of corporate bonds outlined in Chapter 21, we shall analyze briefly representative bonds in each of the three major corporate classifications, industrials, railroads, and public utilities.

Industrial enterprises, because of the uncertainties of competition, are, as we have observed, subject to typically large risks which must be offset from the standpoint of the bond investor by relatively large margins of earnings and asset protection, in addition to particularly careful scrutiny of the operating problems and competitive position of the individual company. The generally unfavorable attitude of investment statutes toward industrials is based on (1) instability in earning power, (2) prevalence of debenture issues without liens on property, and (3) unfavorable average experience due to a relative scarcity of high-grade issues. The last factor is important, because for many years strong industrial companies were increasingly successful in freeing themselves from debt, a trend partly explained by a desire to be free from financial problems in depressed periods and partly due also to the ability of successful unregulated companies to amass profits sufficient to permit the retirement of debt. Since World War II, this trend has been interrupted, but the new obligations have been to a large extent sold to insurance companies rather than to the public.

Analysis of industrial bonds is less readily standardized than is analysis of other classes because of the varied types of activities included. The differences between mining, manufacturing, merchandising, and financing activities are tremendous, and the internal differences in these subdivisions are likewise great. A merchandising company supplying essential consumers' goods, for example, may possess an extremely stable business, while another specializing in luxury items may find its business highly volatile and uncertain, or subject to large inventory losses.

For these reasons it is necessary to adapt analysis of an industrial bond to the specific case, though in each case the primary emphasis will ordinarily be on earning power. A safe general rule, because of the hazards present, is that industrial bonds of distant maturity should be avoided. A maximum permissible distance to maturity might be set at fifteen or perhaps twenty years. In extractive industries, it is essential, of course, that maturity fall before possible exhaustion of resources. Retirement should in such cases be provided for by a sinking fund or by serial repayment.

Swift & Company Obligations Representative. Any industrial bond that might be selected for analysis would be open to criticism as not typical. The two Swift & Company issues we have chosen, however, were as nearly representative as any good-quality industrial obligations on the date selected, June 30, 1932.

Because of the date selected, this illustration does not reflect normal conditions but, on the contrary, conditions of depression and financial pressure of rare intensity. It serves our purpose, nevertheless, by causing certain relationships to stand out with a clarity not easily obtainable otherwise. Though 1932 disruptions may not soon be repeated, financial panics on a smaller scale are a recurrent feature of our economic system, and it is essential, as remarked before, that bonds be bought on a "depression basis."

On June 30, 1932, Swift & Company first mortgage 5 per cent bonds due July 1, 1944, sold at 96½ ($965) on the New York Curb Exchange. On the same day, Swift 5 per cent notes due September 1, 1940, sold at 80½ on the same market. This wide spread in price was a situation that had not prevailed prior to late 1931, although it had been typical of much of 1932. The junior issue had sold as low as 67 on May 17, while the mortgage issue had not gone below 92½.

In 1930, the year the notes had been issued to refund an earlier issue, the comparative ranges for the issues were 103–102 for the mortgage bonds and 101¼–97¾ for the notes. With such a moderate difference in price, it required only cursory examination in 1930 to limit consideration to the mortgage obligation, which yielded 4.70 per cent to maturity at a price of 103, excluding the notes, which yielded only 4.85 per cent to maturity at a price of 101¼. The slight advantage in yield was hardly adequate to compensate for the inferior position of the unsecured note issue, even though both issues appeared safe.

In 1932, however, comparison indicated that though the mortgage issue offered a yield of 5.40 per cent on June 30, the junior issue on a maturity basis was then yielding 8.35 per cent. Such a great difference made examination of both issues desirable and strongly suggested that one or the other of the prices was out of line with realities. Let us now see how the two issues met the tests of safety we have suggested, bearing in mind the panicky and uncertain atmosphere of the time.

(1) NATURE OF THE ENTERPRISE

The meat-packing industry. Swift & Company in 1932 ranked as the largest and strongest unit in a fundamental industry, meat packing. The economic necessity for the industry was not open to question, even though per capita consumption of meats had declined somewhat in recent years, as shown in the accompanying statistical table. Neither did the industry appear vulnerable to technological change, for it was operated by large-scale units noted for their efficient production and distribution. Some new competition was developing from grocery chains, which operated their own packing plants, but this was as yet unimportant, and at the least the industry was unlikely to undergo radical change prior to the maturity of the bond issues in question, eight and twelve years later, respectively.

STATISTICS OF MEAT CONSUMPTION, 1910–1931*

Years	Estimated Domestic Consumption, All Meats	Exports	Imports	Per Capita Domestic Consumption (pounds)
	(millions of pounds)			
1910–1914 (Annual average)	13,239	506	171	139.2
1915–1920 (Annual average)	13,204	1,603	90	128.3
1921–1925 (Annual average)	15,989	794	38	142.9
1926–1930 (Annual average)	16,544	386	107	137.8
1926	16,753	465	59	143.0
1927	16,570	352	114	139.7
1928	16,569	360	143	138.0
1929	16,607	407	154	136.8
1930	16,367	345	63	132.8
1931	16,530	223	24	133.2

* Source: U. S. Department of Agriculture.

Nevertheless, despite its basic nature and the relatively stable consumption of its products, the meat-packing industry was generally viewed as a hazardous field for investment. The chief reasons for this reputation were (1) competition within the industry was notoriously severe, and profit margins had for long been extremely narrow, and (2) an erratic earnings record had been the consequence of recurrent sharp fluctuations in the value of large inventories which had to be carried, particularly inventories of pork products in the process of curing. The price swings with which the industry had to contend are reflected in the table below. The collapse in inventory values in 1921, which followed a great wave of prosperity based on large export business during and after World War I, inflicted tremendous losses that still tended to impair the industry's credit standing. Moreover, the generally unsatisfactory earnings performance of the industry in the late 1920's compared unfavorably with the record profits being made by other industries. Two of the four major companies had actually been in financial difficulties within the past decade.

LIVESTOCK AND MEAT PRICES, 1911-1932*

(at Chicago, cents per pound)

Years	Hogs	Hams, Cured	Steers	Beef, Fresh
1911-1915 (Annual average)	7.6	15.4	8.3	12.8
1916-1920 (Annual average)	15.1	28.6	14.2	19.8
1921-1925 (Annual average)	9.3	24.3	9.7	16.4
1926-1930 (Annual average)	10.4	25.1	12.2	20.3
1926	12.3	30.8	9.5	16.4
1927	10.1	24.6	12.7	18.6
1928	9.6	22.8	14.5	22.8
1929	10.3	24.4	13.5	23.1
1930	9.6	23.0	11.0	20.7
1931	6.1	18.1	8.8	15.6
June, 1932	3.7	13.0	7.4	11.8

* Source: U S Department of Agriculture

The prices on animals and meats shown in our table for June, 1932, were so extremely low by comparison with the past as to give rise to the conviction they could not long stay at such a level, yet they indicated that the packers were suffering large losses in 1932 and served as an eloquent warning of the extent of the financial shock companies operating in the industry must be prepared to withstand. The industry was obviously basic, but it was evident that the investor should demand an extra measure of protection from it, and particularly that he should avoid marginal companies.

The Company. Swift & Company, however, in addition to being the largest of the four dominant companies possessed an exceptionally good record. As a matter of fact, the company had reported only one operating loss in thirty-five years, although 1932 was well along toward registering a second. The management, dominated by members of the Swift family, was experienced and highly regarded. The company's position had been well maintained, and it was in a particularly favorable financial position relative to its principal rival, on the basis of the latest published statements, dated October 31, 1931. Furthermore, there was reason to believe that a substantial diversification possessed by Swift in poultry, eggs, butter, cheese, soap, ice cream, and cottonseed oil was able to contribute materially to stability in operations. The company's numerous packing and produce plants and distributing houses covered the entire country, with the major packing and by-product operation located along with its big competitors in Chicago.

Calculation of comparative operating ratios to measure relative efficiency was hampered by insufficient provision of detail in published income accounts. This was less of a black mark against a company in 1932 than it would be now, but it was an adverse factor that would make the analyst insist on a more favorable showing on the basis of the available figures than would otherwise have been necessary. Several types of operating comparison were possible despite the paucity of figures, but reproduction of the summary ratio of *net income to sales* will be adequate to express the relative position of Swift. It will be noted that we have calculated this ratio on the basis of net income after interest and taxes, for the reason that it was impossible to obtain over the period a figure for operating income. This is illustrative of the type of compromise that is often necessary when the ratio desired is not obtainable, but a substitute ratio may express roughly the same point. In this instance, inclusion of interest charges before calculation of the ratio really serves a useful purpose, for the relative burden of funded debt and of bank borrowings is an important competitive factor.

One significant point that the table on page 399 emphasizes is the narrowness of the margin of profit enjoyed. The relative steadiness of Swift's record was understood to be in part the result of policies with respect to inventory reserves, but this factor over a period as long as that shown might be expected to reduce the profits reported in good years as well as to mitigate losses.

On the basis of these facts, Swift & Company not only was the leading unit but had also been conservatively and efficiently managed and merited attention to see if it could provide the extra margin of protection deemed necessary in this industry.

(2) TERMS AND POSITION OF THE ISSUE

Provisions of the First Mortgage 5's of 1944. Examination of the provisions of the issues revealed that the mortgage issue was secured by a

RELATIVE PROFITABILITY OF OPERATIONS OF FOUR MEAT PACKING COMPANIES

(Ratio of net income after charges and taxes to sales, in per cent)

Year Ended about October 31	Swift & Co.	Armour & Co.	Wilson & Co.	Cudahy Packing Co.
1921	d*0.98*	d*5.29*	n.a.	d*0.90*
1922	2.01	d*1.17**	n.a.	0.77
1923	1.76	1.96†	n.a.	1.06
1924	1.82	2.29†	n.a.	1.65
1925	1.76	1.60†	n.a.	1.24
1926	1.65	1.09‡	1.62§	1.75
1927	1.32	0.06	0.05	1.01
1928	1.53	1.26	0.75	1.02
1929	1.31	1.09	0.74	0.94
1930	1.39	0.53	0.94	1.27
1931	0.10	d*2.60*	d*0.95*	1.11
Five-year average, 1927–1931	1.13	0.07	0.31	1.07
Sales, 1931, millions of dollars	710	668	212	181

d Deficit
n.a. Not available
* Fourteen months to December 31
† Years ending December 31
‡ Ten months
§ Eight months

first mortgage on all property owned or thereafter acquired in addition to the pledge of stock of subsidiaries. Mortgage bonds to the extent of $22,248,500 were outstanding on October 31, 1931, of an authorized issue of $50,000,000. Unissued bonds might be issued to the extent of $1,630,000 for general corporate purposes and $15,000,000 for up to 75 per cent of the cost of additional real property. The remainder of the issue had been retired under a sinking fund of 2 per cent per annum of the original amount, which required the repurchase or call of $667,000 par value of bonds annually. Bonds were callable at 102½ on three months' notice. As an extra protection, the company agreed not to reduce its surplus below $25,000,000, and to maintain net current assets equal to the amount of the bonds outstanding.

These protective provisions of the mortgage issue were entirely satisfactory.

Also senior to the note issue in 1932 were four small issues, totaling $2,931,500, of first mortgage bonds of three New England subsidiaries acquired in October, 1931.

Provisions of the 5 Per Cent Notes of 1940. The note issue, of which $30,000,000 was authorized and outstanding, possessed no liens, but it was protected against the issuance of new mortgages other than purchase money mortgages except for the authorized and unissued first mortgage bonds already mentioned, and provision was made that the company must at all times maintain its current assets equal to 1½ times current liabilities plus outstanding notes of this issue and any similar notes. A purchase fund of $500,000 annually to retire notes at not exceeding 100 was provided. Notes were callable at 102 until March 31, 1933, and ¼ less each year thereafter until 100 would be reached. The purpose of issuance of these notes had been to refund an earlier note issue which would have fallen due in 1932. The new notes were offered at 100 in August, 1930, and the old notes were retired at 100¾ in October, 1930.

Though for practical purposes unsecured, the notes were protected to a degree by the covenant to maintain working capital, which was a larger item than was plant.

Capital Structure. The position of the two issues in the capital structure is brought out in the following table, which shows both book valuations and market valuations.

	BOOK VALUATION (October 31, 1931)		MARKET VALUATION (June 30, 1932)	
	Amount	Per Cent of Total	Amount	Per Cent of Total
5% First Mortgage Bonds, 1944	$ 22,248,500	7.7	$ 22,248,500	20.8
Subsidiary mortgages	2,931,500	1.0	2,931,500	2.7
5% Notes due 1940 (market, 80½)	30,000,000	10.3	24,150,000	22.6
TOTAL DEBT	$ 55,180,000	19.0	$ 49,330,000	46.1
Common Stock (market, 9⅝)	235,673,000	81.0	57,750,000	53.9
TOTAL INVESTED CAPITAL	$290,853,000	100.0	$107,080,000	100.0

On the basis of book assets, both issues appeared to be of conservative size and extremely well protected by junior capital. On the basis of market valuation, the proportion of debt was undesirably high. In normal times such a ratio would probably have barred further interest, particularly if the large book valuation represented principally fixed plant. Under 1932 conditions, however, with equities as a result of general panic selling at the lowest levels on record, leniency was permissible. The total valuation of Swift & Company on June 30, 1932, actually represented only 75 per cent of the net working capital reported on October 31, 1931. Under the circumstances, including notice of the prices prevailing on other representative equities, the analyst was entitled to view the capitalization of Swift & Company as conservative and the cushion of junior capital as appraised by the market adequate for both issues.

(3) EARNINGS PROTECTION

Past Coverage of Charges. A disadvantage already commented on was plainly apparent on examination of the income accounts. Although enjoying a reputation for conservative accounting, Swift & Company had been niggardly in reporting operating data to stockholders. The very stability of net income reported in so unstable an industry was evidence that year-to-year hidden charges and credits to reserves were important. Since the statements were audited by a reputable firm and appeared to have been adequately consolidated, however, the analyst after giving weight to other circumstances was justified in proceeding with the limited data available. The essential points reported are summarized in the following table, which presents an eleven-year record in order to include the last previous serious depression.

SWIFT & COMPANY

Income Accounts

Year Ended on or about October 31	Sales*	Depreciation	Fixed Charges	Income Taxes	Times Charges Earned	Net Income	Dividends Declared
	(in thousands of dollars)					(in thousands of dollars)	
1921	800,000	n.a.	n.a.	n.a.	n.a.	d 7,812	12,000
1922	650,000	n.a.	n.a.	n.a.	n.a.	13,049	12,000
1923	750,000	n.a.	n.a.	n.a.	n.a.	13,185	12,000
1924	775,000	n.a.	n.a.	n.a.	n.a.	14,126	12,000
1925	875,000	n.a.	n.a.	n.a.	n.a.	15,379	12,000
1926	950,000	8,339	n.a.	n.a.	n.a.	15,645	12,000
1927	925,000	8,416	n.a.	n.a.	n.a.	12,202	12,000
1928	970,000	9,198	n.a.	n.a.	n.a.	14,813	12,000
1929	1,000,000	8,966	n.a.	n.a.	n.a.	13,077	12,000
1930	900,000	8,628	5,221	1,598	3.4	12,491	12,000
1931	710,000	7,735	3,275	665	1.2	677†	12,000

* Estimated by Swift & Company
n.a. Not available

† Excluding profit on sale of capital assets of $7,558,000

It was possible to offset the serious lack of some types of information by comparison of balance sheets from year to year for the period. Balance sheet figures testified to the reality of reported earnings by the fact that distribution in cash dividends of 96 per cent of earnings during the past decade had not impaired working capital. Net working capital in ten years had declined by $40,000,000, but funded debt had been reduced simultaneously by $38,744,000. For the same ten-year period, the "investment" account showed little net change, and expenditures on property appeared to have roughly offset depreciation charges. Acquisition of new properties in 1931 seemed to have counterbalanced the reduction in property caused by sale of the company's refrigerator car fleet to a car-operating company in early 1931 for $6,430,000 in ten-year notes and an undisclosed amount of cash which was thought to have been possibly $5,000,000.

Lack of information about the size of past fixed charges was a serious failing because of the importance of bank borrowings. Borrowings in the meat-packing industry are seasonally low at the end of the fiscal year in October, so that the balance sheet gives little indication of their actual importance. Had data on fixed charges not been available for 1930 and 1931, consideration of the junior bonds, at least, might have been dropped. The size of these reported charges was reassuring, however, particularly since it appeared that the 1930 figure included the nonrecurring expenses of calling and refunding the old issue of notes. The 1930 volume of sales relative to working capital was higher than in any recent year except 1929, and a safe assumption was that bank loans had during the year been near a maximum.

In view of this situation, little was to be gained from emphasis on exact figures of coverage for fixed charges, yet some approximation of this coverage was essential. Despite inaccuracy as to detail, the table on the following page is adequate for practical purposes. It presents data of past coverage of both 1930 and 1931 fixed charges. In such a case of uncertainty about actual figures, the analyst should ordinarily take the more conservative figure (i.e., hypothetical coverage on the basis of 1930 fixed charges).

On the basis of our hypothetical exhibit, Swift's margin of earnings coverage was entirely adequate to assure safety. Price stability, on the other hand, was not indicated on the basis of the *over-all* coverage calculated, when the degree of fluctuation in earnings was taken into account. Charges on the mortgage issue alone, amounting to only $1,112,000 on the bonds outstanding in 1931, were covered by a much larger margin, so large that the bonds had already in 1932 shown a strong ability to resist general decline in bond prices. As a general rule, however, for industrial bonds mortgage priority is of distinctly limited protection in the event that other debt must be defaulted, and the analyst was justified in giving primary emphasis to the over-all coverage.

It was apparent by June, despite the absence of interim earnings figures, that the fiscal year 1932 would result in a substantial net loss, but there was no basis in this knowledge for concern over any of the company's debt. It is easy in the appraisal of industrial securities to place dispropor-

SWIFT & COMPANY
Hypothetical Coverage of Fixed Charges

Year Ended on or about October 31	Reported Net Income after All Charges (thousands of dollars)	Indicated Times Charges Earned		Reported Depreciation Charge (thousands of dollars)	Times Charges Earned on Cash Basis	
		1930 Charges	1931 Charges		1930	1931
1921	d 7,812	d 0.5	d 1.4	n.a.	n.a.	n.a.
1922	13,049	3.5	5.0	n.a.	n.a.	n.a.
1923	13,185	3.5	5.0	n.a.	n.a.	n.a.
1924	14,126	3.7	5.3	n.a.	n.a.	n.a.
1925	15,379	3.9	5.7	n.a.	n.a.	n.a.
1926	15,645	4.0	5.8	8,339	5.6	8.3
1927	12,202	3.3	4.7	8,416	4.9	7.3
1928	14,813	3.8	5.5	9,198	5.6	8.3
1929	13,077	3.5	5.0	8,966	5.2	7.7
1930	12,491	3.4*		8,628	5.0*	.
1931	677	.	1.2*	7,735	.	3.6*

* Actual n.a. Not available

tionate stress on operations of the most recent year, whether good or bad. Here it was clear that the major factor in the loss was shrinkage in inventory values rather than in the volume of business done, and eventually prices could be expected to swing upward again. As a matter of fact, in order to assure Swift of a profit prices had only to cease declining. Furthermore, it appeared that after allowance for depreciation charges Swift might not yet be operating at a loss on a cash basis. The drain on cash resources of sinking fund payments was not important, and dividend payments on the common had recently been halved. The amount that had been paid out on the common each year until this date had been equal to nearly 22 per cent of the present total of funded debt.

Thus, although earnings data were not properly complete, it was still clear that coverage of fixed charges on any reasonable average basis was entirely adequate. Coverage of the mortgage issue was much better, naturally, but the advantage thus conferred on it was of limited significance in an industrial corporation where the real value of the property lay in profitable operation of the business, not in liquidation.

(4) ASSET PROTECTION

Financial Tests. Pertinent ratios of financial strength and of asset protection are included in the accompanying five-year condensed balance

SWIFT & COMPANY

Condensed Balance Sheet

(in thousands of dollars)

	Oct 31, 1931	Nov 1, 1930	Nov 2, 1929	Nov 3, 1928	Nov. 5, 1927
1. WORKING CAPITAL					
Cash	28,469	18,640	10,449	12,902	19,422
Marketable securities*	17,188		.		
Receivables	46,746	57,702	74,192	75,963	66,817
Inventories	75,465	101,765	127,561	124,236	115,240
TOTAL CURRENT ASSETS	167,867	178,107	212,202	213,102	201,479
Notes payable	1,632	9,106	30,377	23,422	11,717
Other current liabilities	24,209	19,424	25,686	24,436	17,257
TOTAL CURRENT LIABILITIES	25,841	28,530	56,063	47,858	28,974
NET WORKING CAPITAL	142,026	149,577	156,140	165,244	172,504
Current ratio	*6 5*	*6 2*	*3 8*	*4 4*	*6 9*
Quick ratio	*1 8*	*0 7*	*0 2*	*0 3*	*0 7*
% inventories to c. a.	*45*	*57*	*60*	*58*	*57*
% inventories to sales	*11*	*11*	*13*	*13*	*12*
2. OTHER ASSETS					
Property	183,994			.	..
Less. Depreciation	75,604			..	.
NET FIXED ASSETS	108,390	109,107	108,437	106,568	108,151
Investments†	35,516	33,547	30,613	27,927	27,579
3. CAPITAL STRUCTURE					
5% First Mortgage Bonds, 1944	22,249	22,916	23,584	23,919	24,919
Subsidiary debt	2,931	.		.	
5% Notes due 1940‡	30,000	30,000	31,500	37,000	47,500
TOTAL DEBT	55,180	52,916	55,084	60,919	72,419
COMMON STOCK (000's of shares)§	6,000	6,000	1,500	1,500	1,500
Ratio net working cap to funded debt	*2 6*	*2 8*	*2 8*	*2 7*	*2 4*
Ratio n. w. c. excluding inventories to fd. debt	*1 2*	*0 9*	*0 5*	*0 7*	*0 8*
% mortgage debt to net fixed assets	*23*	*21*	*22*	*22*	*23*
% total funded debt to net fixed assets	*51*	*48*	*51*	*57*	*67*

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* At market, and including short-term loans Not separated from investments prior to 1931, when total was increased by notes received in part payment for refrigerator cars sold

† Principally stock in Libby, McNeill & Libby (canning) and National Leather Excluding $4,922,000 of own stock in 1931

‡ 5% notes due 1932 in years prior to 1930

§ Including indeterminate number of own shares carried as investment at $4,922,000 in 1931 Stock was split 4-for-1 in 1930 sheet. The financial strength of the company as indicated by current ratios was impressive. Low quick ratios in the years prior to 1931 were offset by the presence of large short-term receivables. The total net working capital had shrunk during the five-year period, but as we have already pointed out the decline was not alarming in view of the material corresponding reduction in funded debt.

In a business so vulnerable to changing inventory values, it was essential to ascertain that inventories had not been unduly large on the last report date. As shown by the ratio of inventories to current assets, inventories actually had been of less than average proportions, at least in terms of dollars. The ratio of inventories to sales was also conservative on the basis of past experience.

The degree of protection for funded debt provided by working capital was indicated by the two ratios of working capital to debt, showing that, in 1931, for each $1,000 bond outstanding the company owned roughly $2,600 in net working capital, consisting of $1,400 in inventory and $1,200 in *net* cash and receivables.

Weighing these financial measures together with the earnings data already examined, we could raise no reasonable question concerning the continued solvency of Swift & Company.

Property Protection. Property protection for the mortgage issue, as measured by the ratio of mortgage debt to net fixed assets (excluding the substantial book asset of unspecified investments), was conservative, with the debt ratio under 25 per cent. The combination of this test with earlier tests stamped the mortgage issue as clearly high grade, with strong assurances both of safety and of relative stability in market value.

The property protection for total funded debt, measuring the position of the note issue, was considerably less satisfactory, total debt equaling 51 per cent of net fixed assets. Even though we were not disposed to weigh mortgage priority heavily, and despite the earlier maturity of the note issue, the conclusion was obvious that the mortgage issue was worth some premium over the junior issue. However, the premium demanded on the market was tremendous. It appeared that the junior issue was also safe, and for the investor who did not require stability in market value the junior issue was clearly the preferable holding.

(5) MARKET TESTS AND COMPARISON WITH OTHER ISSUES

Marketability. Both issues possessed satisfactory marketability for most purposes. They were well above our suggested minimum size. Sales on the New York Curb Exchange in June, 1932, totaled 155 of the mortgage bonds and 192 of the notes. The monthly average for the first half of 1932 was 144 bonds and 152 notes, and the monthly average for 1931 was 90 bonds and 279 notes.

Stability. As we have already noted, the mortgage issue had a record of relative stability in price during the difficult period preceding, while the notes had dropped sharply. The price ranges for recent years were:

	PRICE RANGES	
YEAR	5% Mortgages	5% Notes
1930	103 -102	101¼-97¾
1931	104⅝- 99¾	102½-88½
1932 (six months)	101 - 92½	95 -67
June 30, 1932	96½	80½

Comparison with Other Issues. Bonds formerly rated as high grade were selling at very low prices in the disorganized markets of 1932. Few industrial issues had been able to resist decline as well as the Swift mortgage bonds. Relative to government bonds, the Swift mortgage issue returned a satisfactory premium in yield, for United States Treasury 4's due 1944–1954 were selling at 102. It appeared, however, on glancing over a representative list of high-grade industrial bonds, that one willing to sacrifice a measure of stability in price could at that time obtain other issues comparable in protection to the Swift mortgage issue at better prices. In short, the mortgage issue was safe but not a bargain.

The note issue, on the other hand, which answered all reasonable tests of safety and yet offered a 3 per cent greater return, was selling on a basis comparing favorably with that obtainable on other industrial bonds of like quality rating.

SUMMARY

The principal factors brought out in our study might have been summarized as follows:

SWIFT & COMPANY

First Mortgage 5's of 1944
5 Per Cent Notes of 1940

Position of the industry	Basic but unstable
Position of the company	Largest and strongest unit
Protective provisions of the issues	Mortgage provisions satisfactory Notes unsecured except for provision for maintenance of working capital; position in structure junior
Capital structure	Conservative

Earnings protection	Strong average coverage on both issues; current unfavorable earnings apparently temporary
Financial position	Strong
Property protection	Mortgage well protected Total debt not excessive
Marketability	Satisfactory
Stability	Mortgage exceptionally stable in price Notes unstable
Comparison with other issues	Mortgage somewhat overpriced Notes favorably priced

Both issues were sound holdings. The premium in yield on the notes, however, was considerably greater than was justified by their inferior contractual position, and they were much the more attractive at existing prices.

SUPPLEMENTARY READINGS

Badger, R. E., and H. G. Guthmann, *Investment Principles and Practices,* Prentice-Hall, New York, 1940, Chapter 13.

Guthmann, H. G., *Analysis of Financial Statements,* Prentice-Hall, New York, 1942, Chapters XIV and XV.

Kraft, C., and L. P. Starkweather, *Analysis of Industrial Securities,* Ronald, New York, 1930, Chapters VIII and IX.

New York State Bankers Association, *Proceedings of the Conference on Bond Portfolios,* New York, 1939, pp. 76–83, 90–95.

PROJECTS

1. Select an industrial bond from an industry other than meat packing. Prepare an analysis along the lines set forth in this chapter. Present a definite conclusion about the bond's attractiveness at the present time, specifying the type of investor or institution, if any, to which it is suited.

2. Compare the yields obtainable (*a*) now, (*b*) 5 years ago, (*c*) 10 years ago, (*d*) 15 years ago, in high-grade industrial bonds with those obtainable in high-grade preferred stocks.

CHAPTER 25 Railroad Bonds

Importance of Railroad Bonds. Though bonds of manufacturing, mining, merchandising, and other "industrial" enterprises are important in the aggregate, the major classes of corporate obligations are railroad and public utility bonds. A railroad, of course, is actually one type of public utility, but investment practice recognizes a definite separation between steam railroads, on the one hand, and "utilities"—electric light and power, gas, water, telephone, telegraph, and traction companies—on the other. This segregation of railroads is in part due to specialized operating problems and accounting methods. It is also a consequence of the large volume of railroad obligations outstanding and, in particular, of the long experience of investors with such bonds as a class. For a long period, high-grade railroad bonds were almost universally conceded to be the most desirable type of corporate obligation.

During the 1930's the unsatisfactory record of earnings and the accumulated financial difficulties of the railroads seriously impaired their general credit rating, and, despite a strong recovery in earnings in the 1940's, relatively few of their bonds are now considered to be of truly high quality. Nevertheless, though less popular than in former years, railroad bonds still constitute one of the major divisions in the investment portfolios of life insurance companies, savings banks, and other institutions. Likewise, they bulk large in trust funds because of the favorable attitude toward them in the statutes governing such investments.

Indicative of the importance of the railroad industry, total railroad funded debt outstanding at the end of 1947 was nearly 9 billion dollars.

Instability of Railroad Revenues. Railroad transportation is a fundamental and once stable industry which over the years has retrogressed in earning power and has developed important elements of instability. Recognition of this obvious fact by the analyst must lead to emphasis on conservative standards of protection. Railroad analysis was predicated too long on the simple assumption of relative stability in revenues, when in fact there was need for the same critical study of competitive factors and the same requirement of extra protection to allow for possible adverse economic trends that were insisted on in analysis of industrials.

Testimony as to the extent of the impairment of railroad earning power in the 1930's and the instability that now prevails is provided by the table below, which shows essential income figures and the margin of coverage for fixed charges for all Class I railroads (railroads

Income Data for All Class I Railroads, 1921–1947 *

(in millions of dollars, except for times charges earned)

Year	Total Operating Revenues	Net Railway Operating Income	Total Income	Fixed Charges †	Net Income	Times Charges Earned
1921	5,517	601	976	618	314	1.51
1922	5,559	760	1,025	630	370	1.59
1923	6,290	962	1,223	641	555	1.86
1924	5,921	974	1,243	666	558	1.84
1925	6,123	1,121	1,389	665	701	2.05
1926	6,383	1,213	1,511	679	809	2.19
1927	6,136	1,068	1,379	686	673	1.98
1928	6,112	1,173	1,493	683	787	2.15
1929	6,280	1,252	1,611	693	897	2.29
1930	5,281	869	1,228	683	524	1.77
1931	4,188	526	831	672	135	1.20
1932	3,127	326	551	666	d *139*	0.79
1933	3,095	474	685	678	d *6*	0.99
1934	3,272	463	666	665	d *17*	0.97
1935	3,452	500	688	661	8	1.01
1936	4,053	667	852	666	165	1.25
1937	4,166	590	765	642	98	1.15
1938	3,565	373	528	627	d *123*	0.80
1939	3,995	589	750	632	93	1.15
1940	4,297	682	851	635	189	1.30
1941	5,347	998	1,175	637	500	1.78
1942	7,466	1,485	1,667	716	902	2.26
1943	9,055	1,360	1,561	647	873	2.35
1944	9,437	1,106	1,318	609	667	2.10
1945	8,902	852	1,057	568	450	1.79
1946	7,628	620	830	509	287	1.56
1947	8,685	781	1,010	486	479	1.99

* Source Interstate Commerce Commission

† Including contingent charges, unimportant prior to 1942

with annual operating revenues in excess of $1,000,000). The table begins with 1921, the first full year following restoration of the railroads to private management after World War I. It includes, of course, the abnormal wartime traffic of the years 1942–1945. Individual results included in these totals naturally differed widely, but few railroads were able to better the general trend by any significant margin.

The unfavorable record of total railroad revenues and net income prior to the extraordinary boom accompanying World War II was the product of a number of influences, only in part associated with depressed and unstable conditions in business in general. These influences centered around a declining trend in the volume of traffic carried, together with changes in the nature of the traffic, resulting to an important extent from the rise of competitive carriers. They were aggravated by the restrictive effects of public regulation of rates and service, by relatively inflexible costs, and by an unwisely pyramided capital structure. The industry is an outstanding illustration of the manner in which problems possibly only temporarily embarrassing to a young and growing business may prove distressingly serious to a mature or declining enterprise.

Declining Trends in Traffic. A long period of expansion in railroad traffic in the United States came to an end at the time of World War I. A decline in freight traffic relative to the total volume of business activity of the nation was in progress during the 1920's, even though the actual peak of traffic was not reached until 1929. This unfavorable trend continued through the 1930's. A rapid and persistent decline in passenger traffic was in evidence after the peak established in 1920. Declining traffic in each instance was accompanied by lower rates, so that revenues shrank even more than physical volume. The table on page 411 provides pertinent statistics concerning both traffic and rates. In 1920, the first year covered by the table, freight traffic produced 70 per cent of gross revenues of Class I railroads, and passenger traffic 21 per cent, whereas in 1947 freight traffic accounted for 81 per cent and passenger traffic for 11 per cent.

During the 1940's, the huge traffic movement for war purposes interrupted these trends, both freight and passenger traffic rising more rapidly than total industrial production. In the early post-war years, this relative improvement was maintained. However, it reflected to an important extent abnormal factors such as a scarcity of raw materials which led to disregard of shipping costs, and the longer term unfavorable trends cannot yet be assumed to have ended. If we compute railroad gross revenues as a percentage of total national income, we find a long-term declining trend that continued during the 1940's. The figure of

TRAFFIC AND RATES OF CLASS I RAILROADS, 1920–1947 *

Year	Volume of Industrial Production †	Tons of Revenue Freight Carried 1 Mile (millions of ton-miles)	Revenue per Ton-Mile (cents)	Number of Revenue Passengers Carried 1 Mile (millions of passenger-miles)	Revenue per Passenger-Mile (cents)
1920	75	410.3	1.05	46.8	2.75
1921	58	306.8	1.28	37.3	3.09
1922	73	339.3	1.18	35.5	3.03
1923	88	412.7	1.12	38.0	3.02
1924	82	388.4	1.12	36.1	2.98
1925	90	413.8	1.10	36.0	2.94
1926	96	443.7	1.08	35.5	2.94
1927	95	428.7	1.08	33.6	2.90
1928	99	432.9	1.08	31.6	2.85
1929	110	447.3	1.08	31.1	2.81
1930	91	383.4	1.06	26.8	2.72
1931	75	309.2	1.05	21.9	2.51
1932	58	234.0	1.05	17.0	2.22
1933	69	249.2	1.00	16.3	2.01
1934	75	268.7	0.98	18.0	1.92
1935	87	282.0	0.99	18.5	1.93
1936	103	339.2	0.98	22.4	1.84
1937	113	360.6	0.94	24.7	1.79
1938	89	290.1	0.98	21.6	1.88
1939	109	333.4	0.97	22.7	1.84
1940	125	373.2	0.95	23.8	1.75
1941	162	475.1	0.94	29.4	1.75
1942	199	638.0	0.93	53.6	1.92
1943	239	727.1	0.93	87.8	1.88
1944	235	737.2	0.95	95.5	1.87
1945	203	681.0	0.96	91.7	1.87
1946	170	592.0	0.98	64.7	1.95
1947	187	654.7	1.08	45.9	2.10

* Source Interstate Commerce Commission.

† Annual indices of the Federal Reserve Board (1935–1939 = 100)

4.2 per cent in 1947 compared with 5.3 per cent in 1940 and 7.3 per cent in 1929.

There is no occasion here to analyze exhaustively the factors contributing to these unfavorable long-term trends, but an outline of the more important may help us to appraise the problem. Losses of traffic *relative* to the volume of industrial activity have been the consequence of two major influences: growth of competitive forms of transportation, and reduced need for movement of some important commodities.

Growth in competitive forms of transportation has been most serious in the case of the automobile. Motor truck lines, favored by flexibility of operations, less stringent regulation, and convenience as well as low cost of the service they offer, have taken a substantial share of the short-haul and high-rate traffic and have depressed rates on the remainder. This is reflected particularly in the severe shrinkage suffered by the railroads in L.C.L. (less than car lot) traffic. The use of trucks has changed distribution methods radically in many lines of business. Modern chain store organizations, for example, ship their merchandise in car lots to central warehouses, from which they distribute by truck to stores located over wide areas. Loss of merchandise and similar consumers' goods traffic to trucks has added to the instability of railroad revenues through increasing their dependence on the movement of iron and steel, construction materials, and other products subject to highly cyclical demand.

The effects of motor bus competition and widespread ownership of passenger automobiles have been disastrous to railroad passenger services, more so than the changes in volume would suggest. The effects of this loss of traffic have been particularly adverse to earning power, since with the rapid growth of the airlines there is now no class of railroad passenger traffic free from severe competition. In freight classifications, on the other hand, there are still many important heavy, bulky, or long-haul items with respect to which the dominant position of the railroads has not been threatened.

Excepting the war period 1942–1945, passenger traffic has for many years been unprofitable. The deficit of 426 millions incurred on passenger service by Class I railroads in 1947 was the largest since net railway operating income was first separately reported for freight and passenger operations in 1936. In 1947, this deficit absorbed 35 per cent of the net operating income obtained from freight service.

Among other carriers that have taken business from the railroads and depressed the level of rates are subsidized inland waterways and oil, gasoline, and natural gas pipe lines. Pipe lines are of importance not only because of their low cost of operation and the effective barrier they have set against movement by rail of the increasing volume of petroleum products, but also because the petroleum products they deliver to consuming centers are for many purposes competitive with coal, the biggest single source of railroad tonnage. Other threats to traffic in bituminous coal have accompanied the development of high-tension, long-distance electrical transmission lines and experiments in the gasification and liquefaction of coal.

The unfortunate effects on individual roads of shifts in demand for a major commodity, such as for example anthracite coal, emphasize the fact that a railroad plant is geographically fixed and may not be moved about should the industries of the region served decline.

One significant and fundamental reduction in the need for movement of freight has been the consequence of the trend toward decentralization of industry involving relocation of factories and establishment of branch plants with an eye to raw material sources and the most economical service of markets.

There is no present reason to question the basic position of railroad transportation in our economic structure, but persistent loss of traffic is undeniable. Even though some roads have to date suffered relatively lightly from this trend, the analyst of railroad bonds is justified in insisting on a margin of protection adequate to allow both for instability in revenues and for some downward trend in traffic. He should be particularly cautious with respect to the longer term railroad issues.

Increased Efficiency. The railroads have accomplished a great deal in offsetting adverse trends by increasing efficiency and improving service. Combining both load and speed factors, the number of "net ton-miles per train-hour" is a highly significant indicator of freight performance. This measure registered a new peak of efficiency in 1947 when 18,126 net tons were moved 1 mile for each freight train-hour. Comparable figures were 14,028 in 1940, 10,580 in 1929, and 9,201 in 1926. Similar measures have also shown large and fairly consistent progress.

The inadequacy of efficient operating management alone to offset adverse traffic influences is apparent from the figures previously cited. However, this factor has been important in maintaining the competitive position of the railroads in many areas and is continuing to receive careful attention. Despite improving efficiency, increases in wage and fuel costs in recent years have been so large that the Interstate Commerce Commission has been forced to grant substantial rate increases. Wages normally constitute almost 65 per cent of operating expenses. The railroad labor unions are strong and tend through their regulations to add inflexibility to railroad costs.

Large capital expenditures have been made by the railroads since World War II for new freight and passenger cars and locomotives in the interest of better service and lower costs. Outstanding has been the trend toward dieselization of locomotive service, which entails important operating economies. However, these large expenditures have constituted a serious drain on the working capital built up during the prosperous war years, and equipment debt has risen substantially.

Restrictive Effects of Public Regulation. Influences of secondary importance but contributing toward the impairment of railroad earning power have been the rigidities and limitations on control over costs and rates which have accompanied the strict public regulation instituted by the Hepburn Act, which enlarged the powers of the Interstate Commerce Commission in 1906. The requirements of such regulation have necessarily limited the freedom of action possessed by the railroads, yet the companies regulated have not been in the sheltered position of monopolies. Instead, they have been forced to adjust themselves to new and severe competition.

For reasons beyond its control, the industry has found the way to many important economies effectively barred. For example, large savings that could result from the consolidation of duplicate services or through the abandonment of unprofitable operations have been in general forestalled by the action of regulatory and legislative bodies, supported by labor unions and other interests fearful of reduced employment. Emphasis has been placed on what is considered to be the public welfare rather than solely on low-cost transportation.

As a matter of fact, a viewpoint frequently propounded is that the United States should embark on a course of governmental ownership and operation of the railroads, after the fashion of the postal system. The railroad systems of various foreign nations are governmentally operated, and, though such a course of action does not seem imminent in the United States, particularly in view of the unfavorable experience with governmental operation in 1917–1920, it is at least apparent that strict public regulation will continue to be directed toward what is conceived to be the interest of the public in general.

The higher ratio of operating expenses to revenues that has prevailed since World War I is one obvious element in the greater instability of earning power which has been considered by some to be closely related to public regulation. The operating ratio of the railroad system as a whole averaged 66.8 per cent in the period 1890–1899, 66.5 per cent in the period 1900–1909, and 69.3 per cent in the pre-war years 1910–1916. This was followed by ratios of 75.9 per cent in the period 1921–1929, 74.8 per cent in the period 1930–1939, and 71.5 per cent in the years 1940–1947. For 1947, the ratio was 78.3 per cent.

This narrowing of the operating margin was an important factor in reducing the power of the railroads to support debt, but it appears that the change was more directly attributable to new competition, to increased taxes, and to higher labor costs than to the activities of the Interstate Commerce Commission.

Pyramided Capital Structures. An excessive burden of debt has tied the hands of many railroad managements in attempting to meet the challenge of new competitive conditions and has multiplied the effect of unstable revenues on net income. For the industry as a whole, funded debt for many years amounted to roughly 60 per cent of total book capitalization. The original reason for heavy debt was the tremendous amount of capital required in construction of the railroads. Subsequently, it was held that the stability of revenues and the basic nature of the industry justified the maintenance of a capital structure pyramided in this fashion, and little consideration was given to retirement of debt.

Once the need for debt reduction became generally recognized, few roads were prosperous enough to make much progress. Even before the collapse of earning power following 1929, restrictions on the profitability of the industry operated to make financing relatively difficult except through the medium of debt. The result was a wave of defaults on debt in the 1930's. At the end of 1938, 30 per cent of the total railroad mileage of the country was in bankruptcy or receivership, and much of the remainder was in shaky financial condition.

Fortunately, retirements of debt from the large earnings enjoyed during wartime prosperity, and completion of many reorganizations which scaled down fixed obligations, improved the picture materially during the subsequent decade. At the end of 1947, the industry's funded debt had been reduced to 54 per cent of its book capitalization. More important, through this reduction, the placing of some charges on a contingent basis, and the refunding of obligations at lower rates, fixed charges had been cut drastically: total fixed charges of 435 millions in 1947 compared with 666 millions in the depression year of 1932. At the same time, net working capital had increased substantially, so that the financial position of the railroads as a whole was far more comfortable than in the years prior to the war.

Thorough Data Available. Particularly thorough and reliable accounting and statistical data are available to the railroad analyst. Prescription of uniform accounts and reports by the Interstate Commerce Commission has served over a long period of years to build up a mass of detailed information both on individual companies and on the industry as a whole. This profusion of data is in fact so great that it has sometimes proved a dubious blessing to the analyst. Too often, it has fostered a laborious and detailed approach to railroad analysis which left the analyst bogged down in a mass of minor points serving effectively to obscure the broader aspects of the situation.

In studying an industry where strict uniformity of accounting is enforced there is, in particular, a tendency to place heavy emphasis on comparative statistics without sufficient attention to the physical factors underlying the statistics. No amount of standardization of accounting, for example, can make the operating ratios reported by a western agricultural road and a Pocahontas soft coal carrier comparable in any strict sense. Mathematical ratios must be supported by evidence that the relationships they represent are reasonably comparable in the individual cases.

Subject to these qualifications, the possession of extensive detail on operations and property and the opportunity to prepare exhaustive comparative studies are obviously helpful to the analyst. How elaborate his analysis is to be in a given case should be determined on the basis of his capabilities and his objective. Really thorough analysis of so complex a business as a railroad is a task for a specialist. At the same time, such a study is not needed for most investment purposes. The analyst will usually do well to leave the determination of fine distinctions in the quality of different railroad bonds to the experts handling large institutional portfolios and confine his own effort to the selection of issues which clearly meet the minimum requirements of safety. If the status of a bond selling at a price commanded by issues of investment quality cannot be clarified without exhaustive study, he will be well advised to drop it from consideration.

For these reasons, we do not propose here to undertake an exhaustive study of railroad analysis. Instead, we shall comment briefly on certain of its peculiarities and then illustrate the application to specific railroad bonds of the flexible general method of analysis we have already outlined.

Special Factors in Railroad Analysis. The numerous specialized ratios and yardsticks that may be employed in analysis of railroad securities are for the most part a natural product of the distinctive nature of operating problems and the typically complicated capital structures of railroads, even though some few, as we have already intimated, may seem to the practical analyst merely to reflect the availability of extensive standardized accounting and statistical exhibits. Those special measures of major importance are largely operating ratios, either financial or physical.

Railroad analysis concentrates particularly on the income account, because of the great importance of adequate current earnings in supporting heavy burdens of debt. To illustrate a convenient method of presenting railroad income accounts, together with significant ratios, we introduce a table which shows composite financial results of Class I railroads for the five years, 1943–1947. The manner in which the ratios are presented in parallel columns is a useful labor-saving device.

CONDENSED INCOME ACCOUNT, CLASS I RAILROADS, 1943–1947 *

(Calendar years, millions of dollars Showing also the percentage of each item to total operating revenues)

	1947	%	1946	%	1945	%	1944	%	1943	%
Freight revenues	7,041	81.0	5,786	75.9	6,534	73.4	6,999	74.1	6,782	74.9
Passenger revenues	963	11.1	1,259	16.5	1,716	19.3	1,790	19.0	1,653	18.3
Other operating revenues	681	7.9	582	7.6	652	7.3	648	6.9	620	6.8
TOTAL OPERATING REVENUES	8,685	100.0	7,627	100.0	8,902	100.0	9,437	100.0	9,055	100.0
Maintenance of way	1,212	14.0	1,150	15.1	1,411	15.9	1,263	13.4	1,108	12.2
Maintenance of equipment	1,558	18.0	1,469	19.3	2,147	24.1	1,587	16.8	1,440	15.9
Transportation expenses	3,476	40.1	3,212	42.1	3,016	33.9	2,974	31.5	2,686	29.7
Other expenses	551	6.4	526	6.9	478	5.3	458	4.9	423	4.7
TOTAL OPERATING EXPENSES †	6,797	78.3	6,357	83.4	7,052	79.2	6,282	66.6	5,657	62.5
NET OPERATING REVENUES	1,888	21.7	1,270	16.6	1,850	20.8	3,155	33.4	3,397	37.5
Railway tax accruals	936	10.8	498	6.5	823	9.2	1,846	19.6	1,849	20.4
Operating rents ‡	171	1.9	152	2.0	175	2.0	203	2.1	188	2.1
NET RAILWAY OPERATING INCOME	781	9.0	620	8.1	852	9.6	1,106	11.7	1,360	15.0
Other income	229	2.6	210	2.8	205	2.3	211	2.2	201	2.2
TOTAL INCOME .	1,010	11.6	830	10.9	1,057	11.9	1,317	13.9	1,561	17.2
Miscellaneous deductions	45	0.5	34	0.4	38	0.4	41	0.4	41	0.4
INCOME BEFORE FIXED CHARGES	965	11.1	796	10.5	1,019	11.5	1,276	13.5	1,520	16.8
Rent for leased roads §	127	1.5	125	1.6	142	1.6	159	1.7	167	1.8
Interest charges	310	3.5	346	4.6	381	4.3	407	4.3	430	4.8
TOTAL FIXED CHARGES	437	5.0	471	6.2	523	5.9	566	6.0	597	6.6
INCOME AFTER FIXED CHARGES	528	6.1	325	4.3	496	5.6	710	7.5	923	10.2
Contingent charges	49	0.6	38	0.5	46	0.5	43	0.4	49	0.5
NET INCOME	479	5.5	287	3.8	450	5.1	667	7.1	873	9.7
TIMES FIXED CHARGES EARNED	2.21		1.69		1.95		2.25		2.55	

* Sources Interstate Commerce Commission and Association of American Railroads

† Expenses were increased in 1945 by special amortization of defense projects

‡ Net hire of equipment and joint facility rents

§ Among eastern roads, in particular, rentals guaranteed to leased lines are substantial.

Ratios of particular importance among those shown in the composite income account are the *operating ratio,* or ratio of total operating expense to total operating revenue, the *transportation ratio,* and the *maintenance* ratios. The transportation expense ratio and the operating ratio, to a lesser extent, summarize factors relative to the operating efficiency of the road. The maintenance ratios help to indicate the degree of confidence which may be placed in the operating ratio as reported; that is, they suggest the extent to which a favorably low operating ratio may reflect principally skimping on maintenance, or a high ratio excessive provision for maintenance.

Despite the advantage of a uniform system of accounts, however, comparison of ratios reported by different railroads is not an easy proposition. The transportation ratio, for example, reflects much more than mere efficiency of management and excellency of plant; it also reflects the nature of the traffic carried by the particular road (dense or light traffic, high-rate manufactured products or low-rate raw materials, goods easily handled or difficult to handle, long-haul or short-haul, originated by the road itself or received from connections), geographical peculiarities (grades and curves on terrain traversed, expenses due to snow, floods, hurricanes), and similar factors. Attention to trends in the transportation and operating ratios is of greater benefit than setting up arbitrary standards.

Likewise, expenditures required to maintain properly the roadbed, structures, and equipment will vary greatly according to the nature of the terrain and the volume and type of traffic carried. Experience has suggested a minimum requirement for maintenance of at least 25 per cent of total operating revenues. The typical road has allotted a somewhat higher percentage of gross for this purpose, roughly 30 per cent in recent years, but the adequacy of the provision can be gaged only in the light of the operating characteristics of the particular road. It is desirable in this respect to note the proportions of gross allocated for maintenance over a period and to examine the reasons for any recent important change in the ratio. Some guide to the condition of equipment is afforded by statistics of "bad-order" equipment, or locomotives and cars awaiting repair.

Though in the past maintenance of way and structures was almost wholly a cash expense, since 1942 it has included depreciation of road property. Maintenance of equipment includes a substantial book provision for depreciation. Sometimes in railroad analysis coverage of fixed charges is calculated on a cash basis, excluding provision for depreciation to the extent that it is not required for redemption of equipment trust obligations. It would seem sounder in the case of railroads, when such depreciation charges are small in proportion to funded debt and seldom seem to have been excessive, to omit this calculation except when analyzing weak situations where solvency is threatened.

Physical Factors. Indiscriminate comparison of the financial ratios of different roads is hazardous, but that does not mean that much cannot be gained by its intelligent use. It requires simply that attention be given first to ascertaining the points of similarity or difference in operating characteristics. Comparison is most satisfactory when made with roads in the same territory or, failing that, with roads elsewhere handling similar traffic under reasonably similar conditions.

The nature of a railroad's business may be ascertained in great detail, and customarily a schedule is prepared to show the percentage of revenues derived from products of agriculture, mines, forests, and factories, from less-than-car-lot freight, and from passengers. The percentage of revenue derived from important single commodities is also shown. The average length of haul for both freight and passenger traffic is calculated, and the average rates received per ton-mile and passenger-mile.

Reduction of financial and operating statistics to a per-mile basis is often particularly helpful for purposes of comparison. The entire income account may be so translated, into per-mile revenues, transportation and maintenance expenses, taxes, fixed charges, and income. Capital invested is often shown on a per-mile basis, and funded debt is commonly expressed in terms of debt-per-mile, especially when the protection afforded a specific mortgage by the pledged section of road is to be measured. Per-mile financial statistics should be supplemented with physical measures, notably *traffic density,* which is expressed in terms of ton-miles of freight carried per mile of road operated, or of passenger-miles per mile of road.

Useful in appraising the ability of management are various measures which may be calculated relative to the average revenue load per freight train, the average speed of freight train movement, and so forth, including the movement of ton-miles per freight train-hour, which has already been mentioned.

Example of Comparative Analysis. As an example of comparative analysis, illustrating the manner in which a clear-cut decision may be made by the analyst on the relative merits of two railroad issues appraised by the market as of roughly similar quality, we shall consider the positions of Union Pacific first lien and refunding 4's of 2008 and Morris & Essex first refunding 3½'s of 2000 as indicated by information available in the year 1937.

In May, 1937, a list of bonds recommended as attractive for investment by an important investment advisory service included among others:

	Market Price	Current Yield	Yield to Maturity
Union Pacific R R. 4's, 2008	105¼	3.80%	3.78%
Morris & Essex R R. 3½'s, 2000.......	91	3.85%	3.88%

Both of these issues were active, seasoned, and generally rated as high grade, the Union Pacific bonds receiving the highest possible quality rating of leading statistical agencies and the Morris & Essex bonds the second highest. On the surface, particularly in view of the similarity in yield, it did not appear that there could be any important difference in soundness of the two issues for investment purposes. Let us examine briefly some of the pertinent factors brought out by analysis.

(1) NATURE OF THE ENTERPRISE

The Industry. The instability of railroad revenues was possibly less evident in early 1937 than it has since become. There was ample ground, however, in view of the statistical trends we have outlined, for taking a critical view of railroad securities and insisting on conservative margins of coverage for charges. The industry was basic, but its earning power had obviously been seriously impaired. Especially for extremely long-term issues such as those in question there was reason for insisting on strong protection. In fact, it might with some logic have been argued that railroad issues of such distant maturity should not be purchased at all by the conservative investor.

The Companies. Differences in the characteristics of the two railroads involved in this instance were striking. The Union Pacific was a major transcontinental system operating 9,918 miles of main track connecting Omaha, St. Joseph, and Kansas City with Portland, Seattle, and Los Angeles and forming the central link in the principal line between Chicago and San Francisco. In addition, it possessed substantial investments in other railroads and in related enterprises. Its traffic was well diversified, with 1936 freight revenues being derived 29 per cent from products of agriculture, 7 per cent from animals and products, 10 per cent from products of mines, 10 per cent from products of forests, 37 per cent from manufactures and miscellaneous, and 7 per cent from all L.C.L. freight. The most important single commodity carried, lumber, accounted for only 8 per cent of freight revenues in 1936. Freight revenues amounted to 82 per cent of total revenues in 1936, while passenger revenues were not quite 10 per cent.

Traffic density of the Union Pacific was high compared with that of other railroads in the area, and the road enjoyed the longest average freight haul in the country. Of freight carried, 62 per cent in 1936 was originated on the company's own lines. The territory served was on balance a growing area, and the management possessed a reputation for progressiveness.

The Morris & Essex Railroad was a leased (in perpetuity) line of 126 miles making up a key segment of the Delaware, Lackawanna & Western Railroad, which operated 985 miles of double-tracked main line from Hoboken on New York harbor through the Pennsylvania anthracite coal fields to Buffalo. Working control of the road was held by the New York Central and associated interests. The "Lackawanna" main line was strategically located, being the shortest route from New York to Buffalo, and had been maintained in excellent physical condition. The road, however, suffered from a lack of balance in traffic, being excessively dependent on shipments of anthracite, which in 1936 accounted directly for 27 per cent of gross freight revenues and indirectly for even more through the influence on other traffic of mining activity in the anthracite-producing regions served. This situation was particularly unsatisfactory in view of the persistent declining trend of consumption of anthracite. Another problem associated with the territory served was the extremely high level of taxes on railroad properties in New Jersey, where the Morris & Essex lines are located.

Because of its heavy coal traffic and the compact nature of operations in its thickly populated territory, traffic density of the Lackawanna was much greater than that of the Union Pacific, yet over the preceding decade it had suffered a definitely more severe decline. In 1936, 50 per cent of the freight carried was originated on its own lines. Freight revenues were 74 per cent of gross revenues, and passenger revenues 14 per cent. Passenger traffic was relatively heavy on the Lackawanna, but it was largely short-haul commutation traffic and had been following an unfavorable trend.

The differences between the two roads were illustrated by the statistics on relative traffic density. In 1936, the Lackawanna reported a freight density of 3,131,000 revenue freight ton-miles per mile of road operated, as against 1,269,000 for the Union Pacific. Similarly, in passenger traffic the Lackawanna reported a density of 510,000 revenue passenger-miles per mile of road operated, against 106,000 for the Union Pacific. Such statistics, of course, are descriptive and rarely can serve as indications of actual profitability without extensive supplementary data. A significant comparison that may be made easily, however, is relative to the trend over a period of years. Such comparison disclosed, for example, that, although the passenger density of the Union Pacific in 1936 exceeded its average density for the preceding decade by 46 per cent and its freight density registered a rise of 9 per cent on the same basis, the figures reported by the Lackawanna for 1936 in both cases were below its ten-year average.

Both roads were known to possess considerable financial resources, but unfavorable earnings that had prevented payment of dividends on its common stock since 1931 had cost the Lackawanna its once high reputation. The Union Pacific, on the other hand, had been one of the few roads to maintain substantial dividends on its common stock through the preceding years of depression.

As a means of checking generally on the operating efficiency of the two railroads the following tables are of service. Studies of comparative efficiency often are carried to voluminous lengths, but for most purposes of the investment analyst such minute attention is of little if any added value. The different operating problems facing the two managements are again suggested by the figures of revenues per mile we have included

OPERATING RATIOS

Year	Gross Revenues		Maintenance Expense	Transportation Expense	Operating Ratio
	Per mile of road operated	Index number, 1927=100	(in per cent of gross revenues)		
I Union Pacific System					
1927	$21,068	100	32.0	28.6	68.8
1928	21,927	104	31.2	28.7	68.0
1929	22,024	105	30.6	28.9	67.6
1930	19,220	91	30.3	30.4	69.2
1931	15,678	74	29.7	31.7	71.1
1932	11,670	55	25.7	33.1	68.8
1933	11,332	54	26.9	31.3	67.2
1934	12,310	58	29.0	31.2	67.2
1935	13,504	64	30.4	33.4	72.2
1936	15,741	75	29.6	31.7	70.1
II Delaware, Lackawanna & Western					
1927	$85,541	100	26.8	39.0	71.1
1928	81,461	95	26.8	39.2	71.5
1929	81,907	96	26.8	38.7	70.6
1930	69,800	82	28.2	41.0	75.5
1931	58,792	69	28.9	42.7	78.6
1932	46,541	54	28.8	43.3	79.8
1933	43,426	51	29.0	43.3	80.2
1934	44,907	52	28.0	44.0	79.6
1935	45,083	53	28.9	45.9	82.7
1936	50,383	59	27.0	44.5	78.8

in the tables. Noting these different circumstances, the analyst should focus his attention primarily on the trends of operating and transportation ratios rather than on their comparative levels. The trends of these ratios favor the Union Pacific. The maintenance expenditures of both roads are shown to have been satisfactory, though the Union Pacific apparently skimped temporarily in the worst years of depression.

(2) TERMS AND POSITION OF THE ISSUE

Provisions. The complicated capital structures of railroads and the recognition given to mortgage protection in reorganization proceedings require stress on the contractual provisions and the degree of priority possessed by individual railroad issues, even though we have declared it unwise to assume that strength of the protection nominally accorded an individual issue can offset weakness in a company taken as a whole.

Both of the issues at hand possessed mortgage protection, with the Morris & Essex security considerably the stronger. The Morris & Essex issue held the underlying mortgage on the most vital property of the Lackawanna system, the 126 miles of main line through New Jersey which afforded the system its sole access to the New York metropolitan area, together with extremely valuable tidewater terminal property in Hoboken and Jersey City. A "terminal" value of some importance was recognized. The bonds were guaranteed as to principal and interest by the Delaware, Lackawanna & Western. The Union Pacific issue, together with the equally secured 5's of 2008, possessed a first mortgage on 1,336 miles of secondary lines and a second lien on 2,031 miles of trunk lines, subject to a $100,000,000 first mortgage. It thus ranked, for practical purposes, as a "junior mortgage." Both issues were "legal" in most states. No sinking funds were provided, and the Morris & Essex bonds, which were outstanding to the full amount authorized, were noncallable. Of $200,000,000 Union Pacific bonds authorized under the mortgage, $65,877,000 4's of 2008 and $20,000,000 5's of 2008 were outstanding. These issues were callable as a whole only, but at 107½, which ruled out of consideration immediately the 5 per cent issue, then quoted at 115½. Call was by no means a remote possibility in view of the railroad's success in offering long-term 3½ per cent debentures at 99 in 1936.

Capital Structure. The capital structure of the Union Pacific appeared sound enough on the basis both of book capitalization and of market valuation, as reflected in the following table. Generally speaking, a ratio of debt to total market valuation of 50 per cent is considered conservative for a railroad, though an average ratio is deserving of more weight than

UNION PACIFIC SYSTEM

Capital Structure

	BOOK VALUATION (Dec. 31, 1936)		MARKET VALUATION (May 22, 1937)	
	Amount	Per Cent of Total	Amount	Per Cent of Total
First Mortgage 4's of 1947........	$100,000,000	10 1	$100,000,000	13 1
Subject issue and issues of subsidiary roads .	199,257,000	20 2	199,257,000	26 3
Debenture 3½'s of 1970–1 ...	46,835,000	4 8	46,835,000	6 1
TOTAL FUNDED DEBT.	$346,092,000	35 1	$346,092,000	45 5
4% non-cum. Preferred Stock (market, 93)	99,543,000*	10 1	92,600,000*	12 2
Common Stock and surplus (market, 144)	540,140,000	54 8	322,000,000	42 3
TOTAL INVESTED CAPITAL..........	$985,775,000	100 0	$760,692,000	100 0

* Preferred stock has no priority over common as to assets.

a ratio for a single date as shown here. The total debt shown does not include any possible liability on the joint guaranty with nine other roads of $50,000,000 of bonds of the important Kansas City Terminal Railway Company.

Market valuation of the equity in the Lackawanna system at only 17.7 per cent of total capitalization was definitely unsatisfactory and reflected the speculative status to which the road had been reduced. The Morris & Essex issue, because of its underlying nature and modest size relative to the total valuation of the system, appeared well protected by junior money, but from the standpoint of the conservative investor this fact was more than offset by the slim equity of the system as a whole.

(3) EARNINGS PROTECTION

Past Coverage of Charges. It is evident that the railroad analyst, cognizant of large fixed charges and unstable revenues, must concentrate particularly on the income account. Essential income items should be presented covering a reasonably long period, preferably ten years, for the nature of business done by a railroad changes only gradually.

Average over-all coverage of fixed charges is, of course, the basic ratio reflecting earnings protection for debt, but other measures are useful. The basic ratio should be supplemented, when nonoperating income is important, by a ratio showing the degree to which charges have been covered by earnings from actual railroad operations. For border-line roads, as we have already noted, the margin by which depreciation charges

DELAWARE, LACKAWANNA & WESTERN

Capital Structure

	Book Valuation (Dec. 31, 1936)		Market Valuation (May 22, 1937)	
	Amount	Per Cent of Total	Amount	Per Cent of Total
Funded debt	$ 4,457,000	1.5	$ 4,457,000	2.4
Lease rentals	150,153,000*	50.0	150,153,000*	79.9
TOTAL SENIOR OBLIGATIONS	$154,610,000	51.5	$154,610,000	82.3
Common Stock and surplus (market, 19⅝)	145,878,000	48.5	33,200,000	17.7
TOTAL INVESTED CAPITAL	$300,488,000	100.0	$187,810,000	100.0

* Rentals on leased roads and on New York piers capitalized at 5 per cent, a rough approximation disregarding ownership of some securities of the leased roads by the Lackawanna itself.

MORRIS & ESSEX RAILROAD

Capital Structure

	Book Valuation (Dec. 31, 1936)		Market Valuation (May 22, 1937)	
	Amount	Per Cent of Total	Amount	Per Cent of Total
First Mortgage 3½'s of 2000	$35,000,000	41.5	$35,000,000	41.4
Construction 4½'s, 5's of 1955 (markets, 88 and 98)	35,000,000	41.5	31,800,000*	37.6
TOTAL FUNDED DEBT	$70,000,000	83.0	$66,800,000	79.0
Common Stock† and surplus (market, 59¼ bid)	14,291,000	17.0	17,800,000	21.0
TOTAL INVESTED CAPITAL	$84,291,000	100.0	$84,600,000	100.0

* Including $10,000,000 par value 4½'s of 1955 owned by Delaware, Lackawanna & Western.

† The Lackawanna lease agreement guaranteed interest upon the bonds and $3.875 per share annual dividends upon Morris & Essex common.

exceed cash requirements for retirement of equipment trust obligations is frequently added to the income available for charges in order that coverage of charges may be calculated on a cash basis. Separate calculations may also be made to show the coverage on underlying issues alone, especially when reorganization is imminent.

Pertinent earnings data for the two roads under discussion are presented in the following tables, including a summary table in which comparative coverage of fixed charges is shown. More elaborate treatment in this instance would have served little purpose. Conversion of income account items into figures "per mile of road," for example, would have added virtually nothing to the basis for decision between two roads of such

EARNINGS DATA
(in millions of dollars)

Year	Net Railway Operating Income	Other Income	Total Income	Fixed Charges	Net Income	Dividends Paid
I Union Pacific System						
1927	39 5	18 4	57 9	18 3	39 7	26 2
1928	43 8	20 3	64 2	18 1	46 1	26 2
1929	45 3	21 6	66 9	17 7	49 3	26 2
1930	35 3	19 8	55 1	16 4	38 7	26 2
1931	24 7	17 7	42 4	16 3	26 1	26 2
1932	18 0	18 4	36 4	15 8	20 6	19 5
1933	18 7	18 1	36 8	15 3	21 6	17 3
1934	18 4	15 5	34 0	15 3	18 7	17 3
1935	18 6	15 3	33 9	15 3	18 5	17 3
1936	25 1	12 5	37 6	15 4	22 2	17 3
II Delaware, Lackawanna & Western						
1927	17 4	5 3	22 7	7 0	15 7	11 8*
1928	17 1	3 1	20 2	7 1	13 1	11 8
1929	17 5	3 1	20 6	7 2	13 3	11 3
1930	11 2	2 7	13 9	7 8	6 1	10 1
1931	7 2	1 9	9 2	8 1	1 1	4 2
1932	4 0	2 0	6 0	8 5	d 2 5	..
1933	3 5	2 1	5 6	8 6	d 3 0	..
1934	4 5	1 5	6 0	8 0	d 2 0	..
1935	3 6	1 1	4 7	7 7	d 2 9	..
1936	6 4	1 3	7 6	7 8	d 0 1	..

* Plus 59 6 millions dividend in stock of Lackawanna Securities Company, which removed a major source of "other income"
NOTE: 1935 and 1936 figures in both tables adjusted slightly to conform with basis of reporting in earlier years.

different types. The tax burden borne by the Lackawanna would have been emphasized strikingly by such a comparison, yet this burden was already included in operating results, and elaboration on it would have accomplished no useful purpose.

Although somewhat better coverage of charges would have been shown for the Union Pacific Railroad alone, excluding subsidiaries, such a calculation would have been unreal. Similarly, an estimate might have been made of the true margin of coverage of charges on the underlying Morris & Essex bonds. This coverage would have been expected to be more satis-

Comparative Coverage of Charges

Year	Union Pacific System Times Charges Earned		Delaware, Lackawanna & Western Times Charges Earned	
	Total	From railroad operations alone	Total	From railroad operations alone
1927	3.17	2.16	3.23	2.47
1928	3.55	2.43	2.86	2.43
1929	3.79	2.57	2.85	2.43
1930	3.36	2.15	1.78	1.43
1931	2.60	1.52	1.14	0.90
1932	2.30	1.13	0.70	0.47
1933	2.42	1.23	0.65	0.40
1934	2.23	1.21	0.75	0.56
1935	2.21	1.22	0.61	0.47
1936	2.44	1.63	0.98	0.82
10-year average	2.80	1.73	1.56	1.24
5-year average	2.32	1.28	0.74	0.54

factory than the over-all coverage for the system, yet even an underlying bond was not justified in selling to yield 3.88 per cent unless the system were sound as a whole.

After study of these figures, there was no basis on which the Morris & Essex issue, despite its well-secured mortgage position, could be considered equal in quality to the "junior" Union Pacific bonds. In view of the changes that had occurred in the railroad industry in recent years, it was apparent that little weight in this instance could be given 1927-1930 figures and the ten-year average coverage. Addition of interim figures available through April showed an improvement over 1936 in both cases, sharper with the Lackawanna, yet wholly insufficient to alter the implications of the average experience of the preceding five years. The Lackawanna system had seriously inadequate average earnings, a dangerously low minimum, and an unfavorable trend.

The total coverage of the Union Pacific had been consistently satisfactory. The minimum coverage was 2.21 times, and the trend was at least no worse than for railroads as a whole. The question with regard to Union Pacific lay in its nonoperating income, without which income the coverage in recent years would have been inadequate to lend stability to the bonds. Shrinkage in nonoperating income had been persistent ever since 1929, and in 1936 such income was actually one-third less than in 1932.

Examination of Union Pacific's nonoperating income, however, suggested that the bulk of the income remaining was reasonably stable. Such income came primarily from the large investment portfolio, which included large blocks of bonds of other railroads. The most important single source of income was joint ownership with Southern Pacific of Pacific Fruit Express, which had gradually curtailed dividends since paying out substantially in excess of earnings during the worst depression years. Large investments held in common stocks of other railroads had seen dividends eliminated a number of years earlier. A promising new source of income commented on in the 1936 annual report was production of oil from 1,100 acres of land owned in an important recently discovered oil field at Los Angeles harbor. Three wells were already completed and producing 3,200 barrels of crude oil daily.

On the basis of these factors, Union Pacific's nonoperating income gave reasonable promise of remaining substantial, at least sufficient that average coverage of charges twice over from total income, the requirement we have suggested for a sound railroad issue, could be expected to continue. The relatively modest coverage from operating income raised some question, however, which might have been serious had not other exhibits been favorable.

(4) Asset Protection

Financial Tests. The financial position of the Union Pacific as of December 31, 1936, was strong, in striking contrast with that of the Lackawanna. The latter's position was satisfactory only in the sense that a large amount of unpledged equipment and an important stretch of unmortgaged road were available as security for borrowing, and that there were no important early maturities. Its once strong finances had been weakened by years of deficit operations, which had already necessitated the sale of bonds of leased roads, formerly held in its treasury, in order to maintain working capital.

The Union Pacific in recent years had been able to expand working capital while reducing moderately its total funded debt and lowering interest charges through refunding operations. It did not face important early maturities, and its large investment account represented a substantial financial reserve. The bulk of the system's working capital was in the hands of the parent company.

Essential financial data and ratios are presented in the following tables. It was apparent that the financial position and trends of the Union Pacific

UNION PACIFIC SYSTEM
Balance Sheet Data
(in thousands of dollars, as of December 31)

	1936	1935	1934	1933	1932
Cash	26,396	25,457	24,343	20,335	20,810
United States bonds and notes	23,846	23,847	23,920	23,972	23,983
Total current assets	83,771	76,582	74,391	69,239	67,018
Total current liabilities	34,586	24,972	24,597	24,043	22,285
Net working capital	49,185	51,610	49,794	45,196	44,733
Current ratio	2 4	3 1	3 0	2 9	3 0
Quick ratio	1 4	2 0	2 0	1 8	2 0
N.w c. times fixed charges	3 2	3 4	3.3	3 0	2 8
Total funded debt	346,092	347,496	345,952	348,192	355,422

DELAWARE, LACKAWANNA & WESTERN
Balance Sheet Data
(in thousands of dollars, as of December 31)

	1936	1935	1934	1933	1932
Cash	3,915	2,705	3,131	4,062	3,468
Total current assets	8,838	6,864	8,045	8,748	8,219
Total current liabilities	10,148	9,182	8,996	19,831	18,949
Net working capital	d *1,310*	d *2,318*	d *951*	d *11,083*	d *10,730*
Current ratio	0 9	0 8	0 9	0 4	0 4
Quick ratio	0 4	0 3	0 3	0 2	0 2
N.w.c. times fixed charges	*def.*	*def.*	*def.*	*def.*	*def.*
Total funded debt	4,457	4,667	4,068	15	15
Rental obligations (capitalized at 5%)	150,153	150,201	152,125	154,177	154,005
Total debt and rental obligations	154,610	154,868	156,193	154,192	154,020

were strong items in favor of its bonds, while the position and trends of the Lackawanna were such that only strong earnings factors could have offset them.

The Lackawanna figures were based on unconsolidated statements, overstating somewhat the amount of rental obligations because the parent company owned portions of some of the guaranteed issues, amounting on December 31, 1936, to roughly 8 per cent of their total par value.

Property Protection. Though the value of railroad property must in the final analysis depend on the volume of traffic handled and its earning power, the burden of debt on a railroad is frequently measured in terms of "debt per mile." The Union Pacific system's funded debt per mile of road operated at the end of 1936 was at the low figure of $35,000. For the parent company lines alone, the debt per mile was $65,000.

The debt per mile of the Lackawanna, if rentals were capitalized at 5 per cent, was $156,000. For the Morris & Essex alone, debt per mile was $476,000 consisting of $278,000 first mortgages and $198,000 construction mortgages, excluding the portion of the latter held by the Lackawanna. This appeared high even in view of its being a multi-track road, the fact that half of it was electrified, and the valuable terminal properties and warehouses included under the mortgage.

On the basis of book values for road and equipment, less depreciation, it appeared that the debt of Union Pacific as a system amounted to 42 per cent of fixed property (exclusive of investments). For Union Pacific Railroad alone, total debt of $235,182,000 amounted to 62 per cent of net fixed property of $381,298,000. This was exclusive, however, of investments in affiliates carried on the books at $329,919,000 and other investments carried at $171,050,000.

On the books of the Morris & Essex, road and equipment were stated at $82,431,000. The $35,000,000 of first 3½'s thus amounted to only 42 per cent of fixed property. Total debt of the Morris & Essex, however, if one were to include the $10,000,000 issue owned by the Lackawanna, was $70,000,000, or 85 per cent of fixed property.

(5) MARKET TESTS AND COMPARISON WITH OTHER ISSUES

Marketability. Both issues were large, seasoned, and active. The volume of Union Pacific 4's of 2008 traded on the New York Stock Exchange in the year 1936 had been $2,844,000 (par value), and $656,000 had been traded in April, 1937. Of the Morris & Essex issue, $3,897,000 had been traded on the New York Stock Exchange in 1936 and $398,000 in April, 1937.

Stability. Price fluctuations of the two issues in most recent years had been practically identical when expressed in terms of yield to maturity. The distant dates of maturity, of course, had resulted in larger fluctuations in prices than had been typical of comparable issues with nearer maturities. The following table compares the annual price ranges of the two issues for the period 1929–1936. It will be noted that in terms of yield the Union Pacific issue (4's) fell somewhat lower during 1931 and 1932 than did the Morris & Essex (3½'s). In view of the fluctuations seen in prices of all bonds during this period, both issues possessed adequate stability for most purposes, though the distant maturities would continue to operate to widen price movements.

Annual Price Ranges

Year	Union Pacific 4's of 2008	Morris & Essex 3½'s of 2000
1929	92⅛– 85	80½–70½
1930	97¾– 88¾	85¾–77
1931	98¾– 67⅞	86 –65
1932	88⅝– 70	77 –66¼
1933	93½– 78	81 –70
1934	104⅞– 89	93⅞–74¾
1935	108⅝-103¾	95½–85⅞
1936	111½–107½	97½–90
1937 (through May 22)	109⅞–103	97¼–85⅜

Comparison with Other Issues. The issues in question were appraised by the market as possessing a high degree of safety. Their yield (3.78 and 3.88) were 1 per cent greater than the yield obtainable on the longest United States Treasury issue, the 2¾'s of 1956–1959, and ½ per cent greater than yields on highest quality electric utility bonds of 30-year maturity. However, they were only slightly greater than the yields prevailing on what were considered to be the prime long-term railroad mortgages, the Atchison general 4's of 1995 (yielding 3.58 per cent), the Norfolk & Western consolidated 4's of 1996 (yielding 3.36), and the Chesapeake & Ohio general 4½'s of 1992 (yielding 3.69).

Since the Union Pacific and Morris & Essex bonds were selling at prices so near those of the soundest railroad issues, it was obvious that interest in them was not justified unless they were believed to possess highly satisfactory margins of safety.

Summary

The analysis might have been summarized as follows, in skeleton form for purposes of comparison:

	Union Pacific 4's of 2008	Morris & Essex 3½'s of 2000
Position of the industry	Fundamental, but declining and unstable	
Position of the company	Satisfactory	Declining
Protective provisions of the issue	Satisfactory	Strong
Capital structure	Satisfactory	Inadequate equity
Earnings protection	Satisfactory	Inadequate
Financial position	Strong	Inadequate
Property protection	Satisfactory	Satisfactory
Marketability	Satisfactory	Satisfactory
Stability	Satisfactory	Satisfactory
Comparison with other issues	Satisfactory	Overpriced

Thus, for one willing to own bonds of such distant maturity, the Union Pacific bonds appeared safe. The Morris & Essex bonds were definitely undesirable on the price basis prevailing, which suggested that they were still reflecting elements of strength which had disappeared in recent years.

Indicative of the importance of maintaining strict standards of selection, and of the fallibility of judgments expressed in the markets, there are included below subsequent prices on both issues.

PRICES ON SELECTED DATES

Date	Union Pacific 4's of 2008	Morris & Essex 3½'s of 2000
May 22, 1937	105¼ (3.78%)	91 (3.88%)
May 31, 1938	101	56
May 31, 1939	109	43⅛
May 31, 1940	*	35⅜ bid

* Called. Payment made at 107½ on September 1, 1940.

Equipment Trust Certificates. Certain special classes of railroad obligations deserve separate attention. Of these, the most important are equipment trust certificates representing liens against rolling stock, issued by car-leasing companies as well as by railroads. Issues of this class have established an enviable record of safety over a long period, even in instances of receivership, and in reflection of this fact a large proportion of the total outstanding is locked up in institutional portfolios and trading is not active. In practice, payment of interest and serial maturities on equipment trust issues has usually taken precedence over servicing of first mortgage bond issues.

The favorable experience with equipment trust issues has been primarily due to the salutary practice of serial repayment, which normally results in the indebtedness being extinguished long before the rolling stock loses its usefulness. It has also been due in part to the ease with which rolling stock may be repossessed, as a consequence of its mobility and the fact that under the usual "Philadelphia plan" agreement title remains vested in a trustee pending retirement of the entire obligation, although repossession is a theoretical rather than a practical alternative, because default is unlikely to occur in a period when the sale of such property to other railroads may readily be effected.

The analyst examining an equipment trust issue will note the nature of the agreement under which the equipment is owned or pledged, the extent of the down payment made by the railroad to establish its equity, whether the equipment represented is of a specialized or general type, the adequacy of retirement provisions, and similar factors. In his final decision, however, weight must still be placed on the general credit of the railroad in question, for there may be small comfort in being in the safest position in a sinking ship.

Terminal Bonds. Terminal bonds differ from other railroad debt in the nature of the property pledged (terminal facilities, belt-line railroads, real estate) and in the fact that they normally are jointly and severally guaranteed by two or more railroads which use the facilities. Formerly considered among the strongest corporate obligations, issues of this class have in general suffered from declining business handled by the terminals and from weakening of the credit positions of the guarantor railroad companies. Where the property pledged is particularly valuable or one or more of the guarantor companies is very strong, terminal bonds still deserve high regard. Scrutiny should be directed, however, both at the actual value possessed by the property alone and at the binding nature of the guaranty agreement.

Guaranteed Stocks. An important but little publicized segment of the capital of some railroads is made up of guaranteed stocks, comprising the common or preferred stocks of companies whose lines are leased in return for guaranty of dividend payments at a fixed rate. These issues are generally small and not actively traded, but in many instances they are strongly situated and amount to underlying obligations of important railroads. Typically, they offer somewhat higher yields than more active and better-known railroad obligations, and for this reason they are found in many institutional portfolios.

The average investor, however, finds such issues hazardous in the sense that adequate analysis is difficult and markets are usually unsatisfactory. Moreover, in the event that the lessee becomes insolvent the lease will likely be disaffirmed unless the property possesses a substantial margin of earning power over the guaranteed payments or has especial strategic value. In analysis, it is important to note not only the duration of the lease and its details, which are often difficult to obtain, but also the possibility that the lessee railroad is in a position to divert traffic over another line. Again, of course, the final criterion is the general credit of the lessee.

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PROJECTS

1. Select a principal bond of a solvent railroad, prepare an analysis, and present your conclusion regarding its investment merit and attractiveness at its current price.

2. Select a railroad with a moderate number of issues of debt. Analyze the relative security behind each issue. How many of them would be likely to be serviced uninterruptedly if the road's earning power became seriously impaired by a depression like that of the early 1930's?

3. Present a study of several guaranteed railroad stocks. Note their yields in relation to those of the secured and unsecured obligations of the guarantor railroad. Check briefly into the nature of the security supporting each of the stocks in your list.

CHAPTER 26 Public Utility Bonds

Public Utility Bonds Now the Premier Corporate Investment. During the 1930's, best-grade public utility bonds came to be regarded by investors generally as the premier type of corporate investment. This favorable reputation, which still persists, is built in part on a long period of successful experience with important classes of utility obligations and on recognition of the essential nature of most utility operations. It also reflects the relatively satisfactory record of utility earnings during the years of the great depression which proved so disastrous to railroad credit. The extent of the shift of investment preference in a single decade was remarkable. Whereas in 1930 highest grade long-term public utility bonds sold (at roughly 4½ per cent yield to maturity) to yield purchasers approximately ¼ per cent more than similar railroad issues, in 1940 utility bonds of this class sold to yield on the average (at roughly 2¼ per cent) fully ¾ per cent less than comparable railroad bonds. Utility bonds during this period also gained in esteem relative to long-term United States Treasury issues, to the extent that the 1¼ per cent greater yield on utilities in 1930 had by 1940 been reduced to ½ per cent.

This Prestige Not Shared by All Classes of Utilities. Enhancement in the general prestige of public utility obligations naturally has not applied uniformly to all classes of utilities. Sharp distinctions are made according to the nature and the earnings experience of the different utility industries, some of which actually have suffered severely from unfavorable trends. In investment parlance, the term public utility is used to describe a diverse group of industries supplying important public services on a more or less noncompetitive basis, subject to the regulation of public authorities. Thus, there are included not only the relatively prosperous industries supplying electric light and power, gas, water, and telephone service, but also certain less fortunate industries such as street railways, interurban traction companies, telegraph and cable companies, and various minor divisions. Only the first group of industries enjoys a high investment rating, though many companies engaged primarily in those industries also provide other types of utility services.

The popularity of the bonds of these favored classes of utilities has in fact been so great and the scarcity of high-grade issues suitable for institutional investment so acute as to encourage a dangerous lack of discrimination within the group. In view of the hazards to which we shall refer presently, it would appear that careful discrimination is as essential with issues of these industries as with any others.

Utility Bonds Also the Largest Corporate Group. The total of all public utility bonds outstanding now exceeds total railroad funded debt and is substantially greater than the total of all industrial bonds. The biggest single class of utility obligations, accounting for more than half of the total, comprises obligations of electric light and power companies. Next in importance, from the investment standpoint, are the telephone companies and the gas companies, including both those supplying manufactured gas and those supplying natural gas. Private water companies are not important in the aggregate. Their credit as a class ranks high because of the particularly stable and essential nature of their business, but most of the more important waterworks are municipally owned.

Although the volume of electric railway or "traction" bonds outstanding is large, few such issues are entitled to investment consideration, falling instead into a frankly speculative class. For many years, up to World War I, these bonds constituted much the most important utility classification. They have since, however, declined persistently in quality and in relative importance. Reflecting both rising costs of operation and loss of traffic to the automobile, their earnings experience has been particularly unfavorable and gives no indication of significant improvement.

In this chapter we shall confine our attention largely to the three major divisions of electric light and power, gas, and telephone service. Because of its importance we shall emphasize problems of selection in the electric light and power industry.

The Franchise: The Factor of Monopoly. The public utility company is distinguished from other classes of business organizations principally by (1) its *franchise,* through which it obtains from public authorities the privilege, often exclusive, of utilizing public streets and highways and exercising limited powers of eminent domain in order to supply certain services in a specified area, and by (2) the *regulation* of rates and services undertaken by public authorities to insure against abuse of the privileged position granted. The peculiarities of public utility analysis spring principally from these factors, even though demand for utility services and other economic influences are ordinarily dominant.

The franchise is a contractual agreement between the public authority and the utility company setting forth in detail the privileges and obligations involved. It may be perpetual, for a definite period of years, or terminable at will under certain conditions. Most modern franchises are for a definite period, usually no longer than fifty years, and they may contain provisions permitting termination by the public authority if conditions of the contract are not satisfactorily fulfilled or if the public authority elects to take over the utility properties at a fair valuation and operate them itself. An indeterminate franchise that continues in force subject only to these latter provisions is known as a "terminable permit."

Terminable franchises or franchises nearing the expiration date may represent a serious hazard to the security holder in the not infrequent cases where public relations, either with municipal officials or with consumers, are unsatisfactory. The utility company is in a poor bargaining position under such conditions. Its large investment in fixed properties is immobile, with little scrap value, and as a practical matter the company may be forced to accept virtually whatever terms are offered, subject only to relief from the courts in extreme cases. A significant part of analysis of any public utility is consideration of the attitude toward it of the public served and of officials and regulatory commissions.

Franchises may be exclusive, granting a monopoly of the particular service, or they may be permissive, merely granting permission to supply such service. In the latter case, the public authority may provide for competition by granting permission to more than one company or may simply hold the threat of possible competition in reserve as a bargaining weapon. Recent trends have favored the exclusive franchise, which is the more logical for the typical utility in that operation as a monopoly eliminates duplication of expensive facilities and permits spreading of overhead costs. On the basis of the record, public regulatory authorities have proved at least as effective as competitive forces in securing fair treatment for utility customers.

Even an exclusive franchise, however, may not offer adequate protection from competition, for new and unregulated types of competition not originally envisaged may spring up. A monopoly of the distribution of gas, for example, may lose much of its value if customers are able to heat with fuel oil or cook with electricity at a lower cost. Possession of exclusive franchises for street railway service was of little avail against the rise of the passenger automobile. Furthermore, the franchise can offer no protection against a decline in the economic importance of the territory served. The prosperity of the utility is unavoidably linked with that of its territory, both by the terms of its franchise and by the fixed nature of its plant.

The offsetting obligations in a franchise agreement may be heavy. Expenditures required to maintain city streets have been a heavy burden on some street railway companies, as well as on other utility companies operating underground mains and conduits. Likewise, the provision of minimum standards of service that must be maintained may prove a burden. Provisions relative to maximum rates that may be charged may also be included, though this would seem unnecessary under present conditions of regulation in most states and is hazardous for the utility unless established on a flexible basis to allow for changing costs. The "service at cost" franchise is sometimes employed to allow for changing costs by automatically adjusting rates in accordance with a specified formula, thereby simplifying regulation and avoiding many disputes.

The typical large utility company will be found to be operating under numerous franchises, granted over a period of years in the various communities served and probably covering more than one type of service. In many instances utilities are consolidations of former competitors possessing separate franchises. It is thus seldom possible with a large company easily to ascertain all franchise provisions. Nevertheless, it is essential that the analyst investigate the major provisions of the more important franchises held. In particular, he must know the obligations imposed, the dates of expiration, the terms, if any, under which renewals may be effected, and the political temper of the communities involved for its bearing on renewals. A prerequisite often established in analysis is that the duration of essential franchises extend beyond the maturity of the subject debt by five or more years, although even in this event there may be no assurance that refunding of the debt will succeed, as prospective purchasers would probably be unwilling to invest unless a new franchise on favorable terms were assured.

The Factor of Regulation. In addition to the requirements set forth in franchises, or in accordance with those requirements, utility companies are subject to regulation by public agencies of their rates and services, accounting methods, and financial policies. The regulatory powers vested in the legislatures are delegated by them to federal, state, or municipal administrative commissions, which undertake to see that the consumer's interest is served by reasonable rates and adequate service, and also that the utility company does not earn an excessive return on its investment. The powers usually possessed by regulatory commissions are sufficiently great that scrutiny of trends in regulation is an essential factor in the appraisal of any utility security. The analyst must answer a dual question, not simply "What is the property able to earn?" but also "What will it be allowed to earn?"

The bulk of direct utility regulation is in the hands of state railroad or utility commissions organized for the purpose, though municipalities also take part in some instances and in any event may accomplish some regulation indirectly through taxation. Among federal regulatory agencies, the Interstate Commerce Commission, of course, has jurisdiction over steam and electric railroads, pipe lines, trucking companies, and other transportation companies engaged in interstate commerce with the exception of the airlines, which are subject to the Civil Aeronautics Board. The Federal Communications Commission exercises authority over telephone, telegraph, and radio companies engaged in interstate commerce, and the Federal Power Commission and the Securities and Exchange Commission possess various powers affecting electric and gas utility companies, particularly interstate holding company systems.

Since utility regulation, except in case of transportation and interstate communication, is largely in the hands of state commissions, with considerable differences in the regulatory powers possessed and in the objectives sought, naturally there is far greater variation in the treatment accorded the individual companies regulated than occurs with the railroads, where regulation is concentrated in large part in the hands of a single agency. Material inequities may thus develop between companies operating in different regions. The utility company, however, with its heavy fixed capital investment and thoroughly local business cannot pick up and move to the shelter of a more tolerant commission but must make the best of the existing conditions. It is also true that conditions of regulation existing at a given time can scarcely be considered permanent, for they are inevitably subject to change along with political trends and with the personnel of the commissions. Careful attention to public relations by utility managements is essential. One weapon employed with effect by some companies in marshalling public opinion on their behalf has been the encouragement of widespread customer ownership of utility securities.

Regulation is of some benefit to the utility analyst through its provisions for standardized methods of accounting and the thorough financial and statistical reports it requires, even though such reports may not be readily available and the diversity of regulatory agencies and their varying requirements operate against real uniformity in these respects. Along with more complete and trustworthy accounts, there has also been gained some extra assurance of honest management and conservative financing.

The heart of the problem facing regulatory commissions is, of course, rate making. The level of rates must be established low enough and reduced frequently enough to please the voting public, and yet the utility must be permitted a "living wage." The actual decision is generally on the basis of whether or not the utility will be able to secure a "fair" return on its invested capital. Despite the theoretical right of the utility to this fair rate of return, however, in actual practice many commissions have not unnaturally shown a disposition to be more vigilant in preventing excessive rates of return than in attempting to bolster inadequate earnings. Though by and large the commissions have made an effort to treat the utilities fairly, recourse to the courts has frequently been necessary to contest the establishment of rates considered confiscatory by the utilities.

Rate making involves three principal steps: (1) determination of the present value of the utility property used and useful in public service; (2) determination of a fair rate of return to be allowed on this invested capital; and (3) preparation of a specific rate schedule which it is estimated will produce such a return. The first two steps are of major concern to the analyst attempting to appraise relative vulnerability to regulation. Of the two, valuation of the property is the more difficult problem, some aspects of which were touched on in an earlier chapter.

The most common bases of valuation are actual or "original" cost and "reproduction" cost, each with allowance for accrued depreciation. A variation of original cost is the "prudent investment" basis, which includes in valuation only those original costs that are judged to have represented prudent investment and excludes those costs judged extravagant or unnecessary. Original cost, and particularly the prudent investment basis, has been advocated strongly in recent years by many regulatory commissions as "based on established facts" and "not subject to the vagaries of theories" or fluctuations in prices. The uniform system of accounts prescribed by the Federal Power Commission for those companies under its jurisdiction and also adopted by some state commissions requires the companies to prepare and state in their balance sheets figures showing original cost. Original cost is held to be the cost of the property to the first person devoting it to public service.

Changing price levels over long periods have led many to advocate a reproduction cost basis and to oppose original cost as unreal, in view of the gradual replacement of plant which must be provided for at current prices. Rarely, too, have there been adequate records of original cost. The decisions of the United States Supreme Court thus far have stressed the cost of reproduction, although not to the exclusion of original cost, which it has held may also be an important evidence of value.

Among other baffling problems facing the rate-making authorities may be the extent to which certain properties should be considered in the rate base or should be treated as nonessential to utility operations, the question of capitalizing or charging as maintenance certain types of expenditures upon improvements, or the amount of working capital which should be treated as necessary for efficient service.

The analyst can ordinarily check the book valuation of utility property in several ways. For one, he may be able to obtain a valuation actually set on the property by the regulatory commission or estimated by a reputable engineering firm. For another, he may note the value placed on similar property by other utilities. He may also conveniently check the valuation on the basis of the installed capacity or of the gross business done. A rough standard for valuation of the properties of electric utilities generating their electricity in steam plants is three times the annual gross revenues. For hydroelectric utilities or waterworks a higher ratio of property to gross would be normal, whereas for telephone or gas companies the ratio should be lower, though in each instance the operating efficiency and physical peculiarities of the individual company must be taken into account.

In establishing the rate of return that is considered "fair," practice varies, but there has been a pronounced downward trend in reflection of lower money rates. General acceptance of 7 and 8 per cent as fair rates of return in former years has been replaced by advocacy of a 6 per cent or lower return, even though 7 per cent is still a more common standard. Actually, the electric utility industry in 1947 earned slightly less than 6 per cent on invested capital. Utility credit is admittedly superior to that of the railroads, yet the Interstate Commerce Commission long ago fixed 5¾ per cent as a fair return on investment capital for the railroads.

Persistent rate reductions in reflection of more efficient operations, following upon technological advances and serving to stimulate rising consumption, have established a striking downward trend in charges made by the electric utility industry, which has operated toward maintaining favorable public relations for the industry despite political attacks. A reversal of the declining trend in rates appears to be in the making, however, as the great post-war rise in costs has led to rate increases in many areas. Thus far, most regulatory bodies have been realistic in granting necessary relief without undue delay. However, it must be remembered that even with the best of intentions a commission may not, because of competitive factors, be able to work out a rate schedule that will produce the desired revenue or even perhaps cover the charges of unfavorably situated or poorly managed utility enterprises.

The table following indicates the degree to which rapidly declining rates have offset rising consumption of electricity in the residential classi-

Residential Electric Service in the United States, 1928–1947 *

Year	Average Annual Use of Electricity (kilowatt-hours)	Average Annual Bill	Average Revenue per Kilowatt-Hour (cents)
1928	463	$30.73	6.63
1929	502	31.78	6.33
1930	547	32.98	6.03
1931	583	33.68	5.78
1932	601	33.70	5.60
1933	600	33.12	5.52
1934	629	33.51	5.33
1935	677	33.92	5.01
1936	735	34.30	4 67
1937	805	34.62	4 30
1938	853	35.31	4.14
1939	897	35.88	4.00
1940	952	36.56	3.84
1941	986	36.78	3 73
1942	1,022	37.51	3.67
1943	1,070	38.52	3.60
1944	1,151	40 40	3 51
1945	1,229	41.91	3 41
1946	1,329	42.79	3 22
1947	1,438	44.43	3.09

* Source Edison Electric Institute

fication, which bears the brunt of political agitation and from which more than a third of electric revenues is derived.[1] Commercial and industrial rates have also declined, but more slowly. Many of the rate reductions have, of course, been promotional in nature, i.e., contingent on increased consumption.

The Factor of Public Ownership. Whether or not a utility company possesses an exclusive franchise, under present conditions it is usually as a practical matter well protected by its established position and the substantial investment involved against the intrusion of competing private

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[1] Distribution of sales of electricity and gross revenues as reported by the Edison Electric Institute for 1947 were as follows (in percentages):

	Domestic and Farm	Commercial	Industrial	Other
1947 sales of electricity ...	23	18	52	7
1947 gross revenues........	39	27	29	5

companies, except to the extent that substitute products and services are offered. The problem of competition from utility enterprises owned by municipalities or other governmental units, however, is more serious.

Public ownership of utility facilities or the threat of proposed public ownership, either through purchase of existing facilities or construction of new plants, has for long been an important factor in many regions, even though some classes of utilities like the telephone industry have been free from public competition. As we have seen, the utilities supplying water are now for the most part publicly owned and operated. The problem of public competition, particularly with respect to electric utilities, has been greatly intensified through aggressive sponsorship by the federal government of the development of large publicly owned power projects and through encouragement, both moral and financial, extended to municipalities in taking over the operation of local utility properties or in constructing new municipally owned power plants. The Tennessee Valley Authority's regional power development is, of course, the outstanding example.

Agitation for public ownership and proximity to federal power projects are now major and ever-present factors to consider in the analysis of electric utility companies. Political factors cannot be separated from utility analysis. In certain areas, where large low-cost power output has been developed by the government and especial pressure has been put on municipalities to purchase from the government, the depressing effect on utility securities has been marked. The effect of such power projects extends further than the project itself through advocacy of the low rates frequently achieved as "yardsticks" useful for measuring the fairness of rates charged elsewhere by private utilities, although they may not properly be comparable.

Stability and the Factor of Growth. The prime investment attraction of public utility obligations lies in the stability of earning power demonstrated by major utility industries during periods of adverse general business conditions. To a significant extent this stability has been due to the basic and at times indispensable nature of the services provided, and to freedom from competition. The typical waterworks would illustrate such fundamental stability. In some important instances, however, notably the electric light and power industry, stability in earnings has been to an even greater extent the consequence of a constantly expanding demand for service. Strongly rising underlying trends in demand for electric service have been adequate to offset in large measure the influence of cyclical contractions in business activity, not to mention numerous adverse influences peculiar to utilities, some of which we have indicated.

Different classes of utilities vary greatly in elements of stability as well as in the factor of growth. The principal determinant of stability normally is the nature of consumption (i.e., the degree to which the principal demand is of regular and necessitous nature or is subject to variation in accordance with industrial activity or consumer incomes). In this respect, the customers served by the utility are as important as the type of service. For example, the earnings of a water company supplying large industrial customers with widely fluctuating demand may be less stable than the earnings of less basic utilities serving residential customers. Likewise, a utility serving residential demand in a locality supported chiefly by a few large industries may conceivably possess less stability than a utility serving a diversified industrial demand.

The degree of freedom from competition, of course, affects both stability and growth. Competition may not only encroach seriously on available markets, but it also tends especially to accentuate elements of instability during periods of depression. The excellent record of the electric and telephone utilities reflects in part the absence of significant competition in the principal markets for their services.

The importance of the factor of growth as a contributor to stability in utility earnings is well illustrated by the experience of the electric light and power industry. The table that follows compares the trend in physical volume and dollar volume of sales of electricity with the trend in net income of leading electric utility companies. Impressive stability shown in the net incomes of these companies during years in which industrial and railroad companies were operating at a loss becomes somewhat less reassuring to the investor when he realizes the heavy extent to which it was dependent on a strong undercurrent of growth in demand. This underlying trend has served to cushion the declines in adverse periods. Actually, stability in the net income of these companies has been largely a negative phenomenon reflecting the fact that the volume of business has grown rapidly enough to offset rate reductions, rising taxes, increased depreciation allowances, and other factors which have narrowed the margins of operating profit and of net income despite improved technical efficiency. Looking at the rising operating ratio, the investor is entitled to wonder how stable electric utility revenues would prove should expansion in demand occur at a slower pace or cease altogether.

There are good reasons for believing that the trend of growth in some classes of utility service will continue for an indefinite period. Consumption of electricity, for example, may through the development of new uses grow substantially regardless of whether coverage of potential customers in a given territory is approaching a practical maximum. Thus, growth

TRENDS IN THE ELECTRIC LIGHT AND POWER INDUSTRY, 1926–1947 *

Year	Total Sales of Electricity (billions of kilowatt-hours)	Total Revenues from Sale of Electricity (millions of dollars)	Comparative Index Numbers (1926 = 100)		
			Sales of electricity	Total revenues	Net income—all electric utility companies operating on Dec. 31, 1947
1926	56	1,520	100	100	100
1927	61	1,661	109	109	118
1928	67	1,784	120	117	131
1929	75	1,939	134	128	146
1930	75	1,991	134	131	149
1931	72	1,976	129	130	148
1932	64	1,814	114	119	126
1933	64	1,755	114	115	101
1934	71	1,832	127	120	98
1935	78	1,912	139	126	105
1936	90	2,045	161	135	115
1937	99	2,161	177	142	127
1938	94	2,157	168	142	121
1939	106	2,290	189	151	135
1940	119	2,440	212	160	139
1941	140	2,665	250	175	134
1942	159	2,856	268	188	125
1943	186	3,078	332	202	128
1944	198	3,277	353	216	129
1945	194	3,342	346	220	136
1946	191	3,460	341	228	163
1947	218	3,853	389	253	166

* Source Edison Electric Institute.

in the number of customers for residential electric service has been a materially less important factor in the great expansion of such service in recent years than has increased use per customer. Increased use of radios, refrigerators, and other electric appliances reduced the dependence of domestic energy sales upon lighting from two-thirds in 1926 to less than one-third in 1947.

However, no industry can be expected to expand forever, and the analyst, bearing in mind the experience of the railroad industry, must in each case be aware of the extent to which stability may be dependent on continued growth. Though consideration of possibilities for future growth in a business is essential for a sound judgment of it, bond investment should avoid undue emphasis on the forecasting of future trends. The more obscure the future appears, the more the investor should insist on shorter maturities and on provision for the reduction of debt through sinking funds.

In considering the factor of growth in the case of utilities it is necessary, of course, to remember that we are dealing with growth within a specific geographical area, not with growth in general. Growth or decline in the population or prosperity of the area served must be weighed along with the factors bearing more directly upon the particular product. Increasingly, growth in population, particularly urban population, has become slow and uneven instead of moving in a strong general trend.

Capital Structure. Because of the large amounts of capital required in building up the utility industries and because of the stability believed to exist in their earning power, it has been natural to obtain a relatively large proportion of capital through the incurrence of debt. Thus, a debt of 50 per cent of property value is common, and 60 per cent is generally considered safe. However, the fact that the long period of expansion and favorable earnings we have seen in the utility industries has not brought about any significant reduction in the debt ratio is cause for some dissatisfaction. The analyst should be wary of a debt ratio greater than 60 per cent of net plant, and he should ordinarily insist on a sinking fund or other provision for the gradual retirement of debt.

This is contrary to the views of some who hold that maintenance of a substantial proportion of debt is desirable in the public interest because the use of such capital may be obtained on a much cheaper basis than prevails for equity capital. Such a theory, however, can be accepted only with highly conservative percentages in mind, for we may not overlook the unfortunate experience of the railroads.

Substantial improvement in coverage of the fixed charges of utility companies in recent years should not be assumed in all cases to represent either reduction in debt or improvement in earnings. With equal probability, it may reflect simply the refunding of high-coupon bonds into low-coupon issues. The fact that public utility bonds had usually been issued with some provision for call made it possible for the stronger utilities to refund obligations extensively in 1935 and subsequent years under the stimulus of declining money rates. The increased prestige of numerous issues is traceable to improved interest coverage arising directly from a sharp reduction in interest charges through refunding, with little change in the principal amount of the debt or in actual earning power.

Holding Companies. Distinction between operating companies and "holding" companies, or financial companies organized to hold control of several operating companies, is particularly important in the public utility field. During the 1920's, a major portion of the public utility properties of the nation became grouped together into a number of vast holding company "systems," and despite reorganizations, simplifications, and the "death sentence" contained in the Public Utility Holding Company Act of 1935 these companies are still numerous and important.

The holding companies have performed useful services in the past in providing expert management and technical knowledge, cheaper financing, and various operating advantages to small local units, but some of them have also been subject to flagrant manipulation and to inordinately complicated capital structures involving the most hazardous pyramiding of companies one on top of another. Congress in the "death sentence" provided that utility holding companies pyramided beyond the second degree (operating company, intermediate holding company, and top holding company) be abolished and that the operating properties owned by the remaining companies be integrated geographically. Enforcement of this provision and further minor requirements was placed in the hands of the Securities and Exchange Commission, which has moved slowly in order to avoid excessive disruption and loss to investors.

Holding company analysis requires, of course, preparation of figures both on a consolidated basis and for the parent company alone, with particular emphasis on the means by which funds may be transferred from one company to the other and the many ways in which earnings may be manipulated. Use of the resources of strong operating subsidiaries to bolster the position of weak holding companies through loans or excessive dividend payments has been a particularly reprehensible practice. The great number of subsidiaries of the larger systems, often scattered widely in different sections of the country and engaged in diverse activities including nonutility businesses, have served to complicate analysis greatly. In fact, the average analyst has been well advised to leave some of these situations alone unless he wished to make them a life work.

From the viewpoint of the bond investor, the cardinal defect of holding company obligations is that they are usually supported by little more than the common stocks of the subsidiary companies, so that income can be no more certain than dividends on these stocks. Subsidiary bonds and preferred stocks must be satisfied first. As a corollary of this factor, whether the bonds of a holding company will be adequately protected by the common dividends anticipated receives no consideration at all in the determination of subsidiary rate structures. If substantial amounts of subsidiary bonds are held by the holding company, the situation is naturally stronger. Care should be taken, however, not to give excessive weight to advances to subsidiaries which though made as loans are in reality little more than additional equity commitments.

Special Aspects of Utility Analysis. Utility analysis, like railroad analysis, because of typically heavy debt service requirements and the absence of inventory and credit risks concentrates particularly on the income account. Attention is focused on trends in operating ratios as well as on the actual margins of coverage of fixed charges. Such analysis may proceed conveniently according to the general steps we have already outlined, and the process for most operating companies is not highly complicated. Special stress, however, must be placed on two aspects: (1) the status of political factors and statistical exhibits bearing on the vital questions of rate regulation, franchises, and public competition; and (2) the physical characteristics of the company and of its territory.

The importance of careful study of the first aspect is self-evident. Not only must public relations be appraised, and consideration given to tax problems, but also the rate of return being earned on a conservative basis of valuation of property must be ascertained in order to judge possible vulnerability of earnings to rate cuts. Earnings much in excess of 7 per cent may scarcely be expected to endure, and estimates should be made of the effect of a lower rate of return. On the other hand, failure to earn the full rate currently allowed raises a suspicion of unhealthy competitive influences or of inefficient management.

Special need for emphasis on physical characteristics arises, of course, from the high degree to which utility operations are limited geographically and by the type of business authorized. Invested capital is tied up chiefly in fixed plant of an especially immobile nature. In consequence, the diversity and type of business done and the general nature and prospects of the territory served are rigid factors which basically influence both the stability and the prosperity of the enterprise. In the interest of stability, no one customer or group of customers should bulk too large in total demand, and the size of the population served should be substantial, preferably 100,000 or more.

In addition to information obtained from the breakdown of gross revenues according to residential, commercial, and industrial sources, some of the characteristics of the business may be determined through the use of comparative measurements such as "gross revenue per service connection," "per mile of main," or "per telephone" to indicate the predominant type of consumption. A similar calculation, "gross revenue per capita" in the utility's territory, is used to suggest the size of the potential market as yet unserved.

One common gage of utility operating efficiency is the *load factor,* or ratio of the average demand to the peak demand during a period. The typical utility will have both a daily peak demand, or peak load, and a seasonal peak. Irregularities in demand lead to a low load factor and permit only incomplete utilization of plant, thus increasing operating costs per unit of output. Peak loads must also be considered relative to capacity, and the margin of excess capacity at the time of peak load is significant as an indication of the utility's ability to furnish adequate service or of possible need for new capital investment.

More fundamental than the dissimilarities traceable to regulation, operating problems, and markets served are, of course, those attributes peculiar to the particular industry. We shall consider briefly at this point a few of these special aspects, bearing in mind that the individual company frequently is engaged in two or more separate industries. Occasionally, in fact, analysis is complicated by participation of the company in industries entirely outside the utility field.

Electric Light and Power

We have already given some attention to the importance of the growth factor as an offset to narrowing margins of profit in the electric utility industry. Knowledge that growth cannot be expected to continue at a rapid pace indefinitely and that electric utilities will likely remain a favorite political target suggests a need for conservative standards of protection for debt in this industry despite its favorable reputation. The generally accepted maximum ratio of debt to property of 60 per cent and a minimum average fixed charge coverage of two times assuredly seem reasonable extreme limits for use in the selection of sound bonds. It is always necessary to examine the rate and franchise situation of an electric utility with care, regardless of the strength of other factors.

Within the industry, further classification must be made in addition to the distinction between operating and holding companies we have noted. For example, it is necessary to distinguish between wholesalers of electric power and companies distributing at retail. Because of their heavy dependence on a few contracts the former are ordinarily inferior risks.

Another major distinction is between steam-generating companies and hydroelectric companies. Those employing steam plants generally require a smaller initial investment but experience higher operating ratios. Consideration must be given to the availability of low-cost supplies of fuel for steam plants and to the possibility of a general rise in fuel prices. If hydroelectric generation is employed, the initial investment may be twice that of a steam plant, but operating expenses should be low. However, the distance of transmission, the adequacy and dependability of the water supply, and other factors will have a bearing on net costs. Hydroelectric companies rarely rely solely on water power but will usually own important steam plants, at least as stand-by equipment.

An important point to check in analysis of a utility company is its depreciation policy. Formerly, the depreciation charges made by some companies were notoriously inadequate, and substantially larger charges were allowed the companies for income tax purposes than were included in the published accounts. In recent years, however, this situation has improved materially. A total charge of 15 per cent of gross for depreciation and maintenance is generally accepted as adequate for electric utilities. Roughly 10 per cent is standard for depreciation alone. In 1947, the electric utility industry charged depreciation equal to 2.3 per cent of the *gross* book value of its plant.[2]

MANUFACTURED AND NATURAL GAS

The gas industry may be divided into two branches: companies distributing manufactured gas, which has for some time been losing ground competitively, and those distributing natural gas, which has enjoyed substantial expansion since the laying of new long-distance pipe lines into industrial centers. With the sole exception of home cooking, where the progress of electricity has been slow, gas finds its market in a highly competitive field. Inability to compete on a cost basis has handicapped the manufactured product, while low cost has helped the natural product. More than half of natural gas consumption is industrial, though house heating has grown in importance. Manufactured gas relies heavily on domestic sales for cooking purposes. Consumption of both products is influenced materially by prevailing temperatures.

Gas companies are similar to water companies to the extent that the investments of each are in most cases primarily in mains rather than in production equipment. This makes the gas company with an extensive distribution system especially inflexible, for any material shift in population or increase in population density may require large expenditures for new mains. Companies that do not possess retail distribution systems, however, are in a relatively hazardous position because of heavy dependence on wholesale contracts or on a few industrial plants.

In general, trends in the manufactured gas industry have not been healthy, and operating ratios are high. The investor should either avoid the industry or demand highly conservative protection, at least as much as with an industrial company. In the frequent instances where gas and electric operations are combined, a sound requirement would be that 75 per cent of gross revenue should be from the electric division.

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[2] Edison Electric Institute.

The natural gas industry, despite its recent growth and a strong competitive position, must be examined critically, both because it is engaged in extracting a wasting natural resource and because its demand is so largely affected by industrial fluctuations. Extra margins of protection should be required, though a company confining itself to buying natural gas for retail distribution would normally require less margin than a company part of the capital of which is devoted to the hazardous business of production.

Telephone Service

The investment position of the telephone industry is strengthened by its high degree of freedom from competition. It not only enjoys a favorable growth trend, but it also is essentially monopolistic in nature. Moreover, one company, the American Telephone and Telegraph Company, controls, through its Bell System subsidiaries, 80 per cent of the telephones of the country.

The Bell System's gross operating revenues in 1947 were 61 per cent from local exchange service and 39 per cent from toll and long-distance service. The importance of the latter class of revenue has made telephone income vulnerable to cyclical influences, but on the whole it has thus far established a satisfactory, stable record. Net income has been adversely affected by relatively high fixed costs. Labor costs amount to roughly 50 per cent of gross, with a total operating ratio in 1947 of 81 per cent.

Because of rapid technical progress, substantial maintenance expenses and depreciation charges are necessary in the telephone industry. Provisions for maintenance and depreciation by the Bell System in 1947 totaled 32 per cent of gross revenues.

Absence of extreme political pressure on rates is one advantage the telephone companies possessed over electric utilities for many years. On the other hand, some of the companies have experienced difficulty in obtaining rate increases adequate to cover the rise in costs after World War II. Because of the obvious advantages of unified operations, the industry has so far been immune from competitive municipal organizations.

A coverage of charges and asset protection similar to that recommended for electric utilities is suggested for Bell System obligations. The less comfortable competitive position of smaller rivals would appear to call for a somewhat greater margin of protection for their obligations. The fact that certain Bell System companies have only debentures outstanding would not seem to require any discrimination against them, though where both debentures and mortgage bonds are available on a similar basis the latter would naturally be chosen. Debentures of the parent company are somewhat less well protected because of their dependence in part on the dividends of subsidiaries.

Example of Public Utility Analysis. As a concrete illustration of methods of analysis applicable to public utilities, we shall examine the investment qualities of the first mortgage 3 per cent bonds due in 1982 of the Cleveland Electric Illuminating Company. These bonds when offered to the public on December 11, 1947, were representative of what was generally accepted as the leading class of corporate obligations—well-protected mortgage bonds of electric light and power operating companies. In consequence, the underwriters were able to offer them at a price of 101.08, with a yield of only 2.95 per cent to maturity. Moreover, in the event that declining money rates caused them to appreciate in price, they were callable at 104.08 during the first year and less thereafter. We shall have more to say on the matter of price, but let us first examine the issue from the standpoint of its intrinsic soundness.

It was plain, from the basis of offering and from the "triple A" rating of the company's existing first mortgage bonds due in 1970, that discovery of serious weaknesses in the bonds was unlikely. With bonds of this general nature, moreover, really exhaustive analysis was not necessary, for only the most ample margins of protection could justify acceptance of the low yield offered. Nevertheless, the analyst was forced to check the essential points and make his own decision.

The greater part of the data required for a decision on the quality of these bonds was supplied by the prospectus which accompanied the offering. Prepared in accordance with the rules of the Securities and Exchange Commission, this prospectus provided a wealth of information and was inadequate only in presenting but a single balance sheet, for the interim date of August 31, 1947.

(1) Nature of the Enterprise

The Industry. We have already commented on the industrial background of the electric utilities. The industry possessed an expanding demand and relatively stable earning power. Although certain competitive and regulatory hazards existed, its fundamental position was sufficiently strong that a maturity even as far distant as thirty-five years probably did not involve undue risk, provided that the issuing company measured up to strict standards.

The Company. The Cleveland Electric Illuminating Company was an operating company supplying electricity to the city of Cleveland, sixth largest city in the United States, and to a compact and populous adjacent area extending nearly 100 miles along the southern shore of Lake Erie. Steam for heating and other purposes was also supplied to an area in downtown Cleveland, but approximately 96 per cent of gross revenues was derived from sale of electricity.

The company was organized simply, with one wholly owned subsidiary, which was engaged in minor, nonpublic utility activities. Control of the company had been held prior to 1947 by The North American Company, a holding company, through 79.5 per cent ownership of the common stock. Most of this stock was disposed of in March, 1947, by an offering to stockholders of The North American Company, as a step in curtailment of the latter company's operations, pursuant to the Public Utility Holding Company Act of 1935. The remainder of the North American stock interest was sold to the public in July, 1947, and the new prospectus stated that no person now owned more than 10 per cent of the equity securities. Sale of stock control had brought no change in the managing officers. The North American Company had followed the practice of leaving its Cleveland utility in the hands of local managers, and these men had built up an enviable reputation for efficient operation and conservative financial policies.

Electric power was generated by the Illuminating Company wholly in steam plants. Coal was used for fuel, but facilities existed for emergency conversion to oil in the event of coal shortages. The three major generating plants were favorably located on the lake shore at Avon, Cleveland, and Ashtabula. A part of the Cleveland (Lake Shore) plant was constructed in 1941 and 1942, and the last unit at Avon was built in 1943, but on the whole the plants, though rated modern and efficient, were not up to the latest standards. Total existing capacity of the three plants was 690,000 kilowatts, "name plate" rating, or 804,000 kilowatts by the company's operating rating. This was to be increased to 840,000 name plate rating and 1,020,000 operating rating when construction under way was completed. An additional 60,000-kilowatt unit was authorized and appeared to be needed. Capacity had thus far been adequate for demand, but the margin was uncomfortably narrow, the peak load in November, 1947, being 775,000 kilowatts. In addition, the company had access through interconnections to the neighboring systems of Ohio Public Service Company and Ohio Edison Company.

The Territory. Total population served was estimated at 1,460,000, including more than 900,000 in Cleveland. About 60 per cent of total gross was obtained within the city of Cleveland.

The territory served was a major, growing center of diversified manufacturing activity. No single industry was dominant, although the most important industries—iron and steel, machinery, and metalworking—were subject to greater than average fluctuations in activity and employment. The district was strategically located with respect to railroad transportation, and it contained three of the largest iron ore and coal ports on the Great Lakes, through which traffic moved to and from the Pittsburgh-Youngstown industrial region. Of Cleveland Electric Illuminating's electric revenues in 1946, industrial revenues were 44 per cent, a high figure, with residential revenues 28 per cent and commercial 17 per cent. This was a higher industrial ratio than prevailed prior to the war, and it reflected in part the establishment of new electrochemical industries. Large consumers of power were important, five customers alone accounting for 12.2 per cent of the company's total electric revenues billed in the twelve months ended August 31, 1947.

Franchises. The franchise situation appeared satisfactory. Although nonexclusive, the Cleveland electric franchise was unlimited in duration and carried no onerous burdens. Franchises in outlying communities, excepting Ashtabula where the franchise would expire in 1948, were also of indeterminate duration. No difficulty was anticipated in obtaining a renewal in Ashtabula, but in any event this was less than 2 per cent of the company's business. Public relations appeared sound, even though subject to periodic strain due to the Ohio law that provided that municipalities might fix electric rates by ordinance, thereby encouraging local officials to make political capital of regulation.

The company's steam service in Cleveland was operated in accordance with municipal ordinances, subject to repeal by the city at any time. The steam division of the business was relatively unimportant and unprofitable.

Municipal Competition. An important competitive influence was present in Cleveland in the form of a municipal electric generating and distributing system. This municipal system, operated since 1906, now possessed a rated capacity of 87,500 kilowatts. Additional units totaling 50,000 kilowatts were contemplated. The municipal system did not reach some important sections of the city, and it had not in the past supplied the whole of the various municipal electric energy requirements. Its gross electric revenues in 1946 were only 11 per cent as large as the Illuminating Company's total electric revenues, being smaller relatively than before the war. Confidence that the municipality's increased production could be readily absorbed along with increased Illuminating Company capacity appeared to be justified. Outside Cleveland, municipal competition was not important.

Despite these encouraging aspects, municipal competition in Cleveland had to be considered a material long-range threat. For one thing, the municipality as a policy maintained lower rates than the company for small residential and commercial users.

Regulation. Regulation of rates in Cleveland was accomplished by means of periodic city ordinances establishing rates to be charged. The company followed the practice of extending these rates to the rest of its territory. Ordinances were subject to review by the Public Utilities Commission of Ohio in the event of protest. A settlement had recently been arrived at in a controversy concerning ordinances passed by the City of Cleveland in 1944 and 1946, which had lowered rates. The lower rates were abandoned and the former rates were extended until 1951, subject to cancellation after June 22, 1949, by either the city or the company. The company was thus able to take into income $6,597,000 of revenues previously excluded and held in suspense. The company's rates continued to be below the national average.

Labor Relations. The prospectus disclosed that nonsupervisory operating, maintenance, and construction employees had been represented, since elections held in 1943, by a C.I.O. union, the Utility Workers' Union of America. In 1945, a strike had occurred which led to the Army taking over the company's operations for a few days. However, it appeared that the company had a liberal system of benefits to employees, including a retirement plan, and paid wages in line with those of comparable enterprises. Wages had recently been increased approximately 7 per cent through an arbitration award. There seemed to be no labor problem of consequence.

(2) TERMS AND POSITION OF THE ISSUE

Provisions. The $20,000,000 of subject bonds, "First Mortgage Bonds, 3% Series due 1982," were secured equally with $50,000,000 of existing bonds of the "3% Series due 1970" by a first mortgage on substantially all the fixed properties owned and franchises held. They were being sold to provide funds to finance current and proposed property additions. At the time of their sale, the company had excess liquid assets available, but, as the $92,900,000 construction program described in the prospectus progressed, the proceeds of the bonds would be needed. By late 1948 or early 1949, it was expected that further financing would be necessary.

The bonds offered were to bear interest from December 1, 1947, and to mature on December 1, 1982. They had been purchased at competitive bidding by a nation-wide underwriting syndicate, which in offering them at 101.08 expected to make a ½ per cent underwriting commission. They were redeemable in whole or in part at any time, on thirty days published notice, at a price of 104.08 through November 30, 1948, and at approximately 0.14 less each year thereafter.

The mortgage was not closed; it permitted the issuance of a further $8,500,000 principal amount of bonds, provided that within three years an equal amount would be invested in new property or improvements. Additional bonds without limit could be issued up to 70 per cent of the net bondable value of property additions, subject to various qualifications. Despite the earlier maturity of the large issue of 1970 Series bonds, no sinking fund was provided, nor any maintenance or renewal provision that might provide for debt reduction. There were no restrictions against the construction of bondable additions with cash built up through depreciation charges. The provisions were thus not completely satisfactory, even though from a practical viewpoint they were adequate.

Capital Structure. The *pro forma* position of the bonds in the capital structure on the basis of the August 31, 1947, consolidated balance sheet was as follows:

	BOOK VALUATION (Aug. 31, 1947, *pro forma*)		MARKET VALUATION (Dec. 11, 1947)	
	Amount	Per Cent of Total	Amount	Per Cent of Total
First Mortgage 3's of 1970........	$ 50,000,000	31.7	$ 50,000,000	27.9
First Mortgage 3's of 1982........	20,000,000	12.7	20,000,000	11 2
	$ 70,000,000	44 4	$ 70,000,000	39 1
$4.50 cumulative Preferred Stock...	25,498,900	16.2	27,540,000	15.4
Common Stock and surplus (bid price, 35)....................	62,096,134	39 4	81,360,000	45.5
	$157,595,034	100.0	$178,900,000	100.0

Not only was the book capitalization conservative according to accepted standards for operating electric utilities, but also the market appraisal indicated that actually the protection afforded by junior capital in the capital structure was more conservative still.

(3) EARNINGS PROTECTION

Past Coverage of Charges. The margin of earnings protection, as shown by the five-year income account that follows, was the strongest feature of the subject bonds. The average coverage of fixed charges was 5.84 times on the basis of $1,500,000 annual interest requirements. Addition of the new bonds would make annual interest requirements $2,100,000. This total would have been covered an average of 4.05 times during the period shown. Coverage in the future could be expected to benefit from the earning power of the assets being created from the proceeds of the new bond issue.

We have suggested that a minimum adequate earnings coverage for electric utility operating company bonds is an average of twice the fixed charges for a five-year period. Clearly, average coverage of 4.05 times and coverage in the most recent year of 4.22 times was ample, leaving a large margin for deterioration before the safety of the bonds could be threatened.

As explained in footnotes to the income account, the latest five years (actually four and two-thirds), were affected by a number of extraordinary factors, particularly adjustments in connection with the rate dispute with the City of Cleveland and the amortization of wartime facilities. These factors warranted brief examination of pre-war earnings, which disclosed that income available for fixed charges in the five years 1937–1941 averaged $8,805,000, or 6.10 times charges in those years and 4.19 times charges on the total debt now to be outstanding.

Other aspects of the income account were satisfactory, after due allowance for the difficulties of the war years and the rising costs of fuel and wages which had adversely affected operating ratios throughout the industry. Actually, the operating ratio for the eight months of 1947 would have been only 79.1 had not income been cut by the special $1,745,000 one-month rate reduction granted in settlement of the rate dispute. Depreciation and maintenance were adequate by the standards we have suggested.

As a measure of possible vulnerability to future rate reductions, it is useful to calculate earnings on invested capital and on net plant. The company's 1946 income available for charges was 8.1 per cent of average net plant, a high figure. For the eight months of 1947, the rate obtained was 7.0 per cent. On the basis of average invested capital, 1946 earnings were 7.2 per cent, and 1947 earnings were at the rate of 6.2 per cent.

Cleveland Electric Illuminating Company
Consolidated Income Account *
(as adjusted, years ended December 31, in thousands of dollars)

	1947 (8 mo. only)	1946	1945	1944	1943
Electric revenues	32,369	45,880	45,237	46,062	40,770
Heating revenues	1,606	1,833	2,042	1,855	1,846
GROSS OPERATING REVENUES	33,975	47,713	47,280	47,917	42,616
Operating expenses	17,344	21,490	22,124	21,639	18,331
Maintenance	2,499	2,970	2,685	2,774	2,271
Taxes—general	2,873	4,286	4,205	4,132	3,971
Taxes—federal income	2,650	4,805	2,844	2,903	3,455
Depreciation reported	3,333	5,031	4,796	4,689	4,556
Depreciation claimed for tax purposes	(3,147)	(4,797)	(5,177)	(5,115)	(4,971)
Provision for post-war adjustments	(cr) 436	(cr) 680	2,380	4,259	2,651
TOTAL OPERATING EXPENSE	28,263	37,903	39,033	40,397	35,235
NET OPERATING INCOME	5,712	9,810	8,247	7,520	7,381
Other income	202	253	212	187	106
TOTAL INCOME	5,914	10,063	8,459	7,707	7,487
Interest on funded debt	1,000	1,500	1,500	1,500	1,500
Other interest & amortization charges (net)	(cr) 46	(cr.) 19	(cr) 3	9	(cr.) 127
NET INCOME	4,960	8,582	6,962	6,197	6,114
Preferred dividends	860 †	1,147	1,147	1,147	1,147
Common dividends	3,487 †	4,649	4,649	4,649	4,649
BALANCE	613	2,786	1,166	401	318
% maintenance and depreciation to gross	*17.1*	*16.8*	*15.8*	*15.6*	*16.0*
% depreciation to gross	*9.8*	*10.5*	*10.1*	*9.8*	*10.7*
% taxes (exclusive of federal) to gross	*8.5*	*9.0*	*8.9*	*8.6*	*9.3*
% operating ratio	*83.2*	*79.4*	*82.6*	*84.3*	*82.7*
Times charges earned	*6.21*	*6.79*	*5.65*	*5.11*	*5.45*
Times charges and preferred dividends earned	*3.44*	*3.83*	*3.20*	*2.90*	*2.97*

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* GENERAL NOTE. These figures are taken from the prospectus, and they differ from those originally reported in two major respects:

(*a*) Income impounded and held in suspense for 1944–1946 has been included in the years when earned because of settlement of the rate disputes without refunds. However, the settlement required a special 1-month rate reduction of $1,745,000 which has reduced the earnings shown for 1947.

(*b*) The entire tax saving applicable to 1942–1945 because of accelerated amortization of wartime "emergency" facilities has been offset by credits in the same years to a reserve "for post-war adjustments." This reserve amounted to $9,652,000 on August 31, 1947. It was earmarked for offsetting increased future taxes resulting from inability to charge normal depreciation on these facilities, as well as additional depreciation and increased operating costs due to the installation of the facilities and the nature of the war operations. Charges in earlier years and credits from the reserve for 1946 and 1947 are shown above as "provision for post-war adjustments."

† Three quarterly dividends paid during the 8 months.

(4) Asset Protection

Financial Tests. Essential financial data and ratios are presented in the table below. Considered in conjunction with the substantial earning power already noted, these figures left little doubt in the analyst's mind relative to the company's financial strength. There were no early maturities. A large amount of construction remained to be completed, and financing in addition to the present issue would undoubtedly be required as this program progressed. However, it seemed clear that substantial additional debt supported by new property could be assumed without seriously impairing either earnings or property protection.

Cleveland Electric Illuminating Company
Balance Sheet Data
(in thousands of dollars)

	Aug. 31, 1947	Dec. 31, 1946	Dec 31, 1945	Dec. 31, 1944	Dec 31, 1943
1. WORKING CAPITAL					
Cash & U. S. Gov'ts	17,077	19,912	17,532	10,836	8,810
Total current assets *	28,847	27,809	25,555	18,573	16,502
Total current liabilities	14,021	10,202	7,679	5,087	7,003
NET WORKING CAPITAL	14,826	17,607	17,876	13,486	9,499
Current ratio	*2.1*	*2.7*	*3.3*	*3.6*	*2.4*
Quick ratio	*1.2*	*1.9*	*2.3*	*2.1*	*1.2*
N.w.c. times fixed charges	*9.9*	*11.7*	*11.9*	*9.0*	*6.3*
2. PROPERTY AND DEBT					
Total property †	187,564	180,330	174,915	171,976	170,084
Less: Reserve for depreciation	58,975	56,206	52,393	48,336	44,371
NET PROPERTY	128,589	124,124	122,522	123,640	125,713
TOTAL FUNDED DEBT (to be increased to $70,000,000)	50,000	50,000	50,000	50,000	50,000
% debt to net property	*38.9*	*40.2*	*40.8*	*40.4*	*39.8*

* This summary omits from current assets $3,629,000 refunds of federal income taxes claimed as a result of accelerated amortization of emergency facilities It also omits from liabilities the amount of $2,250,000 estimated as of August 31, 1947, to be required to complete the funding of the company's retirement plan for employees.

† Including $54,000 of nonutility property on August 31, 1947. Figures filed with the Federal Power Commission as of December 31, 1946, indicated that 96 per cent of total utility property was electric plant.

Property Protection. The margin of property protection for public utility debt has real significance despite the specialized nature of the property because of the practice of regulatory commissions of basing allowable return on property values. The property protection indicated in the table on the basis of book values appeared highly satisfactory. The very low debt ratio of 38.9 per cent on August 31, 1947, would be increased to 47.1 per cent by the addition of the new bonds, after $20,000,000 in new construction funds was added to plant account, but the higher ratio would still be conservative. Moreover, the rate cases recently concluded had involved property appraisals which confirmed that book values were stated on a conservative original cost basis, materially below reproduction cost. The Public Utilities Commission of Ohio had upheld the company's contention that only a 4 per cent return was being realized on "reproduction cost" valuation. This return was found to be inadequate. Corroboration of property values was also found in the low ratio of net plant to indicated 1947 gross revenues of only 2.5 times. The property accounts did not contain intangibles or write-ups.

One serious problem remained, however. Though property values were not in question, title to certain important property was. It was disclosed in the prospectus that the Lake Shore generating plant in Cleveland, with an installed capacity of 300,000 kilowatts and an additional 60,000 authorized, was situated on filled-in land beyond the former shore of Lake Erie, to which land the company according to the ruling of the Supreme Court of Ohio had never possessed valid title.

This situation had been known for a number of years, but as yet no action had been taken to dispossess the company from the land. In addition, it was apparent from the decision of the management to locate new units on the land in question that they were confident some compromise, at least, could be reached. Still, the analyst was justified in calculating the effect on the debt ratio of eliminating the property located on the artificially filled land. The prospectus stated that the book cost of this property on September 30, 1947, was $20,040,000. The depreciation applicable to the property was not revealed. In view of the age of much of the plant, depreciation was probably at least as great as on the average of other property, or 31.4 per cent. This meant that elimination of the property in question would have raised the ratio of debt to net property to no more than 43.5 per cent as of August 31, 1947, and 51.9 per cent after issuance of the new bonds. The margin of property protection for debt was therefore judged sound.

(5) Market Tests and Comparison with Other Issues

Marketability. Marketability was certain to be satisfactory. The existing $50,000,000 issue of 3's of 1970 was listed on the New York Stock

Exchange, where sales for 1947 to date had totaled nearly $700,000 par value. The company agreed to use its best efforts to procure listing of the new issue. It was also anticipated that the market for the issue would be broadened by qualification in most states as legal for savings banks and trust funds.

Stability. Although a new issue, not yet "out of syndicate," and therefore requiring extra caution in appraising probable market action, the subject bonds were considered adequately seasoned because of the established market for the essentially equivalent issue due in 1970. This issue had demonstrated an excellent measure of stability in price since its offering in 1940, as shown below:

ANNUAL PRICE RANGE

3's due 1970

1940	110⅛–106¼
1941	110¼–104⅞
1942	108⅜–104½
1943	109½–106⅜
1944	108⅞–106¼
1945	109½–106½
1946	110½–106¾
1947 (to Dec. 10)	109½–102¾

Despite this favorable past record, however, it could not confidently be anticipated that the new issue would possess any high degree of price stability. The low coupon rate and distant maturity could be expected to contribute to substantial fluctuations in price should money rates change. A well-secured predecessor issue had sold to yield 5 per cent at some time during each of the years 1930, 1931, and 1932. The difference in price between a 2.95 per cent and even a 4 per cent basis on a thirty-five-year 3 per cent bond was the difference between 101.08 and 81¼.

Comparison with Other Issues. Relative to similar utility issues of "triple A" quality, the yield of 2.95 per cent obtainable on the new Cleveland Electric Illuminating issue was approximately the "going rate," as was the 2.82 yield prevailing on the shorter 3's due 1970. Rates had firmed during the year under the pressure of liberal offerings of new issues, but they were still relatively low on the basis of historical experience.

The subject issue was clearly high grade, as we have seen, but it commanded a price fully reflecting that fact. For the average smaller investor, the 2.9 per cent yield with constant liquidity obtainable on United States Savings Bonds, Series E, was vastly preferable to the longer term and more hazardous corporate issue. Series F and G bonds, for larger investors, were relatively almost as attractive. Long-term United States Treasury Bonds compared favorably also for those interested particularly in liquidity. The longest issue of these bonds, the 2½'s callable in 1967 and maturing in 1972—still ten years shorter than the subject bonds—were selling to yield 2.44 per cent to call date and 2.45 per cent to maturity.

SUMMARY

The results of our analysis might have been expressed as follows (factors of a more or less neutral nature have been omitted):

CLEVELAND ELECTRIC ILLUMINATING
3's of 1982

Points of Strength

- Unusually large earnings protection
- Conservative debt ratio
- Strong financial position
- Important territory served
- Favorable record of management

Points of Weakness

- Municipal competition
- Title to important property uncertain
- Additional debt to be issued to finance construction program
- No sinking fund
- Probable lack of price stability due to low coupon rate and distant maturity
- Increase in risk of adverse developments due to distant maturity
- Overpriced relative to United States Savings Bonds for some purposes
- Yield only slightly greater than that of shorter term 3's of 1970

The subject issue met the principal tests of quality in a strong fashion, with enough margin so that the qualitative weaknesses noted were completely outweighed. The price set was such, however, that the issue could have been recommended only for large investors or institutional investors in instances where price stability was not a significant factor. Even for these investors, the rising debt of the company and the lack of a sinking fund tended to make the much shorter 3's of 1970 more attractive despite the slight concession in yield.

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PROJECT

Select an electric utility operating company and prepare an analysis of one of its bond issues. Present your conclusions respecting its investment merit and its attractiveness at the current price.

CHAPTER 27 Real Estate and Obligations Secured by Real Estate

A. COMMON CHARACTERISTICS

Need for Competent Appraisal. In our discussion of media of investment in Chapter 3, brief consideration was given to the real estate mortgage. In the present chapter, we shall not only undertake a more detailed evaluation of mortgages as investment media but shall include also such related topics as home ownership and investment in income-bearing property. In order to avoid repetition, we shall deal first with some problems common to all investment in real property and obligations secured by it, and then proceed to point out special problems inherent in each of the special media included in this discussion.

Prudent investment in real estate or liens on it involves first of all a careful valuation of the property in question. Unfortunately, as we have noted before, valuation is far from being an exact science. Given a certain list of conditions, there is no set of tables to which one can turn to find the correct answer. Even after thousands of years of dealing in real property, guessing plays all too important a part in its appraisal. This, however, by no means warrants the conclusion that valuation is merely a process of "eeny, meeny, miny, mo." Out of a long and costly experience there has evolved a well-developed "art of valuation."

After we have considered briefly some of the other characteristics of real estate, we shall examine the modern process of valuation in somewhat greater detail, although the scope of this volume precludes anything more than a bird's-eye view of what is involved.

Further Characteristics of Real Estate as an Investment. A second quality that affects all forms of investment having to do with real property is that land cannot be moved to some other location if conditions at its situs become unfavorable. If, for instance, a railroad company, because of greatly increased efficiency of motive power, can get along with half as many division points, the real property in the towns which are deprived of this source of revenue is likely to suffer a serious decline in value. Scores of similar cases have occurred also where mining or lumbering operations have been abandoned.

A third quality inherent in real estate is its relative indestructibility. Businesses fail and governments default, but real property remains intact. Though this characteristic has its merits, it can be easily overesteemed by an investor. For example, a common point of view expressed in time of depression is that, if money lost in securities had only been invested in real estate, the persons in question would still have their investments "undisturbed." The slightest reflection reveals that although property itself still stands, depression or no depression, the income from it has often suffered a severe shrinkage and its decreased market value, as well as that of any mortgage lien against it, is likely to reflect the inability of tenants and mortgagors to meet their obligations.

A fourth characteristic of land is that, except to a limited extent, its supply is fixed, so far as any given use is concerned. More cannot be produced at will to satisfy increases in demand. Filling in of areas covered by water or leveling off steep hills has afforded additional space in some cities, but these sources have decided limits. As a consequence, ground in areas like lower Manhattan Island has acquired almost fabulous value.

A fifth quality is that land of itself will not produce investment income. It must be cultivated, built upon, or have capital and labor expended on it in some other way before it will yield a return. Obviously, the mere holding of land in order to sell it at a higher price is not an investment operation. Even when some income is derived in the meantime, withholding land from its best possible use still constitutes speculation rather than investment. For example, receiving income from parking facilities on a lot suited to costly downtown business buildings would not alter the speculative nature of the investment in the land. The degree of fertility and accessibility to market of agricultural land and the relative desirability of nonfarming land for the purpose for which it is being used determine their respective values. However, a site that is not now being put to its optimum use will tend to have an added speculative value on that account.

External Factors in the Appraisal of Property. Strictly from the lay investor's point of view, let us survey the more important elements that enter into the value of a given piece of property. If we consider the factors that are external to the land and buildings, we should first regard the *community* in which the property is situated. Is it growing in wealth and population? Does it have a well-diversified economic background (i.e., are the sources of private income relatively free from severe fluctuations)? Do efficient government and a progressive civic spirit prevail? Is the tax situation satisfactory? Is the community over- or underprovided with properties of the type in question? Some of these factors, of course, would be less important if an establishment received little or none of its income from the community in which it was located.

For residential property, particularly, a second set of external factors is found in the present nature of the neighborhood in which the property is situated. Is it unduly subject to unpleasant weather elements like fog or wind? Are the city zoning restrictions favorable or unfavorable to the site in question? Does the prevailing type of inhabitant add to or detract from the value of property? Are there any threatened encroachments by groups whose presence would tend to lower values? Are arterial streets, schools, transportation facilities adequate and readily accessible? Are all the public utility services available? Is the topography of the section favorable? What shifts in the general nature of the neighborhood are noticeable? Though one should not permit prospects of an increase in values to cause him to pay more for a given piece of property than its present worth, the existence of such prospects is an added point in favor of the purchase, just as the prospect of a gradual deterioration of values in the future should turn the scales against property which under existing conditions alone might be reasonably priced.

Factors Pertaining Directly to the Property. We have found that land derives its value from the fact that the amount that can be put to profitable use is limited. A site will be the most profitable when it has been devoted to its highest use. One of the first questions confronting the appraiser of urban land, therefore, is whether the buildings on a plot of ground do represent the optimum use of that land. There is a logical relationship between ground and building that should not be violated by over- or underexpenditure for the latter. What this is must be determined on the basis of experience and of conditions prevailing in the locality.

After the suitability of the building to the land has been determined, the next step is an examination of the quality of planning, materials, and workmanship that entered into its construction. Buildings should embody such new ideas and materials as are consistent with structures of their class without running the risk of being bizarre or freakish. The general style and plan of the structure should be well adapted to the specific use to which it is to be put; yet, in business buildings, a highly specialized structure is much more liable to become a white elephant to the owners and creditors if the type of business for which it was designed proves unsuccessful. Theaters, for example, are conspicuously difficult to convert to the housing of some other kind of enterprise.

A safe rule to follow for a proposed purchase of a site and erection of an income-bearing building on it is to estimate conservatively in advance the probable net annual earnings after all such charges as cost of operation, taxes, depreciation, and obsolescence have been deducted from the estimated gross revenue. In view of the greater need for personal supervision required by this type of investment, a net return of 5 to 6 per cent is necessary even in the face of relatively low interest rates. The outlay for the building and the lot, therefore, should not exceed the capitalized net return. After the estimated cost of erecting the building is deducted, the remainder represents what one can afford to pay for the land. Prices paid recently for similar sites can be obtained and used for purposes of checking the result, but this precaution would be of little use during a real estate boom.

In making an estimate of probable net income one encounters certain factors that defy accurate measurement. One of the most troublesome is obsolescence. In Europe, the better buildings are erected to last for a century or more, whereas, in the United States, when a house, hotel, or office building is "out of style" it loses much of its income-producing power although structurally it may still be thoroughly sound. Of course, the standard of maintenance observed exerts no little influence on the span of useful life of a building. Arbitrary percentages are used by appraisers in computing obsolescence, but, since buildings are composed of a long list of materials, some of which are markedly subject to this factor while others are not, accurate computation is not possible. Long experience, coupled with a determination to err on the side of conservatism, if errors do materialize, is the only safe guide.

Another relatively incommensurable factor is the probable percentage of occupancy. If the owner of a store building is so fortunate as to be able to negotiate a favorable long-term lease with a tenant of high standing and great financial strength, the calculation of this factor is extremely simple, although unexpected expenses due to "Acts of God" or increased taxation may later upset calculations of net income.

Unfortunately, most investments in income-bearing property do have the problem of vacancy to face. Depression, competition, changes in the nature of the neighborhood, and numerous other disturbing factors are likely at times to deprive the owner of his full complement of tenants. Often in desperation competitive rent cutting will ensue with the result that the net income is painfully reduced or even obliterated. Some help may be had from a study of the occupancy experience of comparable buildings.

The appraisal of property, whether it be for one's own use, for an investment, or as security for a loan, requires the services of a trained expert, but the layman should at least be familiar with what is involved in the process.

First, the area, shape, and depth of the lot should be taken into account as well as its position in the block in which it is located. These factors may have an important bearing on value. An accurate description of the boundaries of the property must be obtained. Existing agreements respecting party walls, easements, and leases must be brought to light. The presence of any liens against the property should be ascertained.

Second, in an investment, the probable net income must be ascertained for the useful life of the building, allowance being made for a gradual decline after the years of its "prime" have passed. All the various external factors we discussed a little earlier should enter into the final result. The character and ability of present or prospective tenants must be considered, for not only is there the likelihood of defaults in the rent but also considerable periods of vacancy, when tenants have to be evicted for failing to meet their obligations. Too, a prosperous tenant is much more likely to renew his lease when it expires.

Third, in ascertaining the value of an existing building, the appraiser could, of course, actually compute in detail the replacement cost of the building, less depreciation, but this laborious process is usually avoided. Instead, structures of all sorts are classified and appropriate multipliers assigned to each class. The appraiser calculates the square or cubic foot content of the building and multiplies this figure by an amount of dollars representative of its type of construction. From this sum, of course, appropriate deductions must be made for depreciation and obsolescence.

Fourth, the sale or loan value of the land on which the building is located is, as we have pointed out, the amount of the capitalized value of the earnings remaining after the value of the improvements is deducted.

The procedure of appraisal as we have outlined it, sketchily, probably seems too arbitrary and replete with incalculable elements, and yet the forecasts made in this field contain no higher percentage of error than those made by investment analysts regarding the future performance of factories, railways, and public utilities. Even in the field of civil loans, we found that unfavorable developments have occurred which no investment analyst had any reason to anticipate. So long as generous allowance is made for unforeseen events of an unfavorable kind, the verdict of the appraiser will continue to be a valuable guide to investors and lenders in the domain of real property.

The problems associated with valuing land used for agricultural purposes differ widely from those we have just discussed. Though the appraisal of buildings and other improvements on a farm lends itself to much the same procedure, farm land itself is valued according to its own set of standards.

The appraiser must take into account the fact that the financial outcome of any year's farm operations is a gamble. Frost, drought, flood, or insect pests may take the entire crop. If nature is bountiful, prices may fall below the cost of production, for, in spite of governmental and private remedial devices, the farmer is still at the mercy of a highly competitive market.

Not only must a careful survey be made of the soil, topography, water supply, drainage, and other natural factors, but the situation of the farm respecting distance from local and central markets is also of importance. The ability and character of the family which is to operate the enterprise require careful investigation. Mere technical knowledge regarding crops and livestock is not enough. A farmer must have a considerable degree of business ability if he is to make a success of his undertaking. Just as with urban property, external factors connected with the community play a part in the final result.

B. MORTGAGE LOANS

Definition. The possession of a first mortgage lien against property gives to the holder a prior claim so far as the owner, junior mortgagees, or general creditors are concerned, but payments due to a division of the government for taxes or special assessments and liens filed by mechanics for wages due take precedence over the rights of the first mortgagee, if filed before the mortgage is recorded. In order to establish legally such priority as his lien possesses, the mortgagee must have his mortgage recorded by the county registrar of deeds or some corresponding public officer.

The two most common types of instrument employed in this field are the mortgage proper and the trust deed. Under a mortgage, the borrower pledges directly to the lender his interest in the property covered by the mortgage. Under a trust deed, the borrower assigns his title to the property to a trustee, individual or corporate, who holds it pending the discharge of the debt. The use of trust deeds has facilitated the process of splitting up a large loan into a number of smaller investment certificates secured by the one deed of trust. It has also simplified the procedure for taking over property from a defaulting debtor.

Broadly speaking, any sort of obligation backed by a mortgage could properly be regarded as a mortgage loan, but here we are restricting the term to loans secured by liens on real estate. There is, of course, a wide variation in the types of property on which mortgage loans are placed. Advances against the security of farms, orchards, ranches, vineyards, and other crop- and livestock-producing ventures are usually grouped together in the category "farm loans." In the field of nonfarm loans, homes, factories, office buildings, hotels, theaters, and apartment houses all present their special problems.

The Demand for Urban Mortgage Loans. In earlier chapters we found that, though mortgages no longer dominate the field of investment as they did before the utilities, industries, and governmental bodies became an important factor in the demand for capital, they still are an important medium of investment not only for individuals but also for savings and loan associations, trust and savings departments of banks, life insurance companies, and endowments.

Whereas the states and the national government are disposed to place restrictions on the purchase of equities by the financial institutions under their respective jurisdictions, the privilege of owning mortgages is universally granted. Where the loans are insured by a federal agency like the Federal Housing Administration or the Veterans Administration their attractiveness as institutional investments is greatly enhanced, both in safety and in marketability.

The Cyclical Factor in the Mortgage Loan Field. In Chapter 3 we pointed out that because of the somewhat larger return which they afford, mortgages will continue to attract a considerable amount of funds, but that this type of investment should be left to those who have the time, skill, and facilities for giving it the attention it requires and who are not likely to be embarrassed by its lack of marketability. One of the problems in the mortgage loan field that calls for a high degree of the "skill" to which we have referred is the succession of booms and depressions to which real estate, both urban and agricultural, is subject.

The safety record of mortgage investments in the opening years of the twentieth century was remarkably good, but the war and post-war booms of World War I caused conservative valuation to be thrown to the winds. When the collapse came, mortgage holders in many thousands of instances found that the margin between the face of the loan and the value of the property had been completely wiped out and the borrower was in no position to meet the obligations he had undertaken. A loan of, say,

$10,000 on property with a selling price of $20,000 ordinarily would be regarded as conservative, and yet when a serious reaction sets in the same property may prove to be unsalable at the amount of the loan.

The decade of the 1940's witnessed the most acute housing shortage in the history of the United States. The protracted depression of the preceding decade had resulted in decidedly subnormal additions to the supply of new housing. As a consequence, the country was badly prepared to face the greatly augmented demands of the war and post-war periods.

During World War II, building labor and materials were diverted to essential construction, and fulfillment of normal civilian demands had to be postponed. After the war restrictions were abolished, a great wave of home construction swept the country, fostered by the unusually easy credit terms available. However, building materials were scarce and costly, mechanics' wages had virtually doubled since 1941, and there was an unprecedented growth in the number of families. Consequently, the demand for homes was far in excess of the supply, and prices of both new and old houses rose to two, or even more, times the pre-war level.

This marked inflation in values presented a difficult problem to mortgage loan institutions and investors in real estate obligations. Past experience with boom periods had shown the need for caution in arriving at the percentages that could safely be loaned on highly inflated values. And yet, strict adherence to pre-war appraisal figures would have meant that utterly inadequate amounts would be made available for acquiring homes.

On the assumption that costs of construction were not at all likely to decline to pre-Pearl Harbor figures, even after the inflation spiral had come to an end, the prudent mortgagee made appraisals that were a compromise between the current extreme values and those that prevailed in 1941. He protected himself further by a more careful screening of the borrower and arranging with him a reasonable program for amortizing the principal by regular monthly payments. Even then, there was always the danger that a prolonged period of depression would follow and make it impossible for the mortgagor to meet his obligation or for the mortgagee to salvage the amount due him. A complicating factor in the post-war situation of the late 1940's was that in a large percentage of instances the head of a family was forced to buy property at an inflated price when he would have much preferred to rent. As soon as a desirable rental is available, he will be disposed to "walk out" on his obligation. His down payment and subsequent instalments he will regard as the price he had to pay for shelter in the interim.

Remedies and Relief in Mortgage Defaults. Frequently the steps taken in case of failure to meet the payments required in a mortgage note are the result of friendly negotiation between the two parties concerned. The mortgagee may agree to postpone payments that have come due or to reduce the rate of interest.

In 1933, Congress created the Home Owners Loan Corporation in order to enable distressed owners of mortgaged homes to substitute the Corporation for a private creditor, meanwhile extending the date of maturity and lowering the rate of interest. The home owner could borrow up to $14,000 from the Corporation for the purpose of paying taxes and settling with the holder of his mortgage. As a result of this legislation the government saved probably a million homes from foreclosure and "thawed" many millions in frozen assets in the insurance companies and banks. At the peak reached in May, 1938, the Corporation had on hand more than 555 million dollars in foreclosed homes. The Home Owners Loan Corporation is no longer available to distressed home owners, serving now merely as a collection and foreclosed real estate sales organization, but its creation is indicative of the wholesale relief which the government is likely to give in time of a general collapse in mortgage credit.[1]

If such friendly settlements as we have just described cannot be made, the several states provide one or two general types of procedure. Some of them authorize the mortgagee to sell the property covered by a defaulted mortgage without taking the matter before a court. The others require that the mortgagee present his case in court, showing that the default actually occurred and leaving to the court and its officers the sale of the mortgaged property. Any amount received in a foreclosure sale in excess of the debt plus the costs naturally goes to the mortgagor. On the other hand, he is liable for any amount by which the proceeds of the foreclosure sale fall short of the amount of the debt and accumulated interest. Instances of the latter situation are so numerous in times of severe depression like that of the early 1930's that a number of states have come to the rescue of distressed owners of homes by placing restrictions on the securing of deficiency judgments. Even after the foreclosure sale has been made, some states provide a period of as long as two years in which the dispossessed mortgagor may redeem his property.

It is a common occurrence, especially during hard times, for the holder of the mortgage to be the only bidder for the property at the foreclosure sale. This explains the size of the item "real estate owned" in the balance sheets of insurance companies, banks, and other extensive lenders on mortgage security following the onset of a severe depression.

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[1] According to the *Survey of Current Business* for February, 1948, there was still due to the Corporation at the end of December, 1947, 486 millions.

C. REAL ESTATE BONDS

Definition. The term "real estate bond" has been variously employed in the sphere of investment. Railroads have applied this description to issues secured by nonoperating properties like warehouses and port facilities, or to cases where separate liens existed against the real estate as opposed by those backed by plant and equipment. A real estate mortgage corporation may occasionally designate all its general obligations as "real estate bonds." Our discussion here pertains only to bonds secured by a mortgage on a hotel, office building, theater, or some similar project deriving its income from the rental of its space to one or more tenants.

If the ownership of the land is separate from that of the building, investors are sometimes sold what are known as "land trust certificates," which are fractional shares in the ownership of the ground. The group leases the land to a company which erects a building on it and pays an annual ground rental. If the company defaults, the building can be possessed by the owners of the certificates.

Much of the land in the downtown sections of large cities belongs to estates that have leased it to corporations for long periods of years. Frequently, the lease provides for periodic readjustment of the ground rental. The corporation customarily not only mortgages the building that it erects but the leasehold as well. Bonds of this sort, other things being equal, are inferior to those on property in which both ground and building belong to the same party, for the rent due the owners of the land constitutes a prior claim over the principal and interest on the leasehold bonds. In other words, for all practical purposes, it is a second mortgage rather than the first mortgage it purports to be.

Place in the Field of Investment. We pointed out early in this volume that a mortgage bond with its convenient denominations is more readily marketable than a mortgage, especially if the latter is of any considerable size. In fact, as we have noted above, insurance companies are about the only outlet for large mortgages. During the period immediately following World War I, the popularity of real estate bonds grew by leaps and bounds. These obligations were sold to yield 6 per cent or better, and surety companies stood ready for an annual charge of ½ of 1 per cent of the principal to guarantee that principal and interest would be paid. The practices followed during this period proved to be thoroughly unsound. Promoters of many building projects had little or no equity in them, depending on overappraisal and the use of junior mortgages, in addition to the first lien, to supply the requisite funds. Then too, the "New Era" psychology of the times fostered the erection of more and larger buildings at the high costs then prevailing. Few persons foresaw long years of depression in which many of these projects would not be able to earn their operating expenses, let alone pay the charges on mortgage indebtedness. Not only did the companies that owned these ventures fail, but investment houses and "guaranty" companies also followed suit. As a result of this situation, the investor found that his sacrifice of ½ of 1 per cent of his annual income for the sake of safety had been in vain. In the congressional investigation of real estate bondholders' reorganizations in 1935,[2] it was brought out that of approximately 10 billion dollars of real estate bonds outstanding, 8 billion dollars were in default. The investigation unearthed a number of cases in which bondholders' protective committees, their attorneys, and others connected with the work of ostensibly looking out for the investors' interests were guilty of the most flagrant abuses of the confidence placed in them. The appalling losses sustained by investors in real estate bonds have placed a stigma on this class of security which it has not been easy to remove.

There is, however, nothing inherently unsound about the form of investment represented by bonds secured by a mortgage on real estate. It is the logical way in which to borrow funds for the construction of relatively costly buildings. A large issue of secured bonds issued in convenient denominations has a natural appeal to investors. Though these obligations are quite uniformly unlisted, the sponsoring houses have followed the practice of "making a market" for their particular projects.

Here again, we must emphasize the importance of a skillful and conservative appraisal that not only takes present conditions fully into account but also is able to foresee and discount unfavorable future developments. Even more important, until the promoters of such projects are willing to provide a substantial part of the required capital, first mortgage real estate bonds cannot acquire a satisfactory investment status. Large buildings have been built largely because times were prosperous and money available and the contractors saw the opportunity to turn a profit.

Loans up to 80 or 90 per cent of the value of the property may be safely made to a home owner of high character and satisfactory economic situation, but profit-making building ventures like office buildings, hotels, and theaters are in a different category. Unless the most cautious estimates are made regarding future income, they will fall short of producing it when unfavorable conditions arise. Substantial prosperity, coupled with a correction of the unwise practices that have brought an otherwise sound type of investment into disrepute, have tended to restore the real estate bond to the status which it should occupy as a desirable investment medium, but the investor should never lose sight of the danger inherent in mortgages on specialized buildings such as churches, garages, hotels, and theaters.

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[2] 74th Congress, 1st session, *House of Representatives Report No. 35*, p. 1.

D. FARM MORTGAGES AND LAND BANK BONDS AS INVESTMENTS

The Problem of the Individual Farm Mortgage. Until 1916, farm owners depended for long-term credit mostly on local lenders and to a minor extent on the life insurance companies and mortgage companies which conducted lending operations in local communities through agents. The rates of interest, especially in the newer portions of the country, were high, and commissions and other fees brought total charges still higher.

The earlier years of the twentieth century had witnessed rapid progress in the mechanization of the farming industry as well as a steady rise in the price of land. This rise in price was given a tremendous fillip by World War I. Along with the need for heavier outlays for machinery and higher priced land came a marked increase in farm indebtedness. In the decade 1911–1920 alone, farm mortgage debt increased by some 137 per cent. About 3 billions, or approximately one-third of the total of more than 9 billions, was held by some 750,000 persons, many of them farmers, active or retired, who had "staked" their sons or others by selling them farms on credit.[3]

Farm mortgage indebtedness in the United States attained its maximum size in 1923 when it reached a total of more than 10¾ billions[4] of dollars. Since then it has declined to less than 5 billions.

In the decade of the 1940's, income received by farmers registered a higher percentage of increase than that of any other economic group. Value of farm lands rose accordingly. Both farmers and urban investors bought heavily in land but, for the most part, without going into debt. In fact, farm owners took advantage of their unusual affluence by paying off old obligations.[5]

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[3] Eric Englund, in *The New York Times*, February 5, 1933.

[4] *Agricultural Finance Review*, May, 1940, p. 71.

[5] "The Agricultural Outlook Chart" of the Department of Agriculture for 1948, p. 11, presents the following contrasts between the situations in January, 1940, and January, 1947:

	1940	1947
Value of Agricultural Real Estate.......	32.6 billions	58.6 billions
Real Estate Mortgages.......	6.6 billions	5.0 billions
Ratio of return to value..........	5.5 per cent	8.7 per cent

The rate of interest paid on mortgage loans has undergone a steady decline throughout the country. The marked differential between the old 8 to 10 per cent rates which prevailed in the West and South a generation ago and the 6 per cent characteristic of farm loans east of the Missouri has long since disappeared. Not only is the average rate lower, but there is also an approximation to equality in the several parts of the nation.

The inauguration of the Federal Farm Loan System with its two types of lending agencies—the Federal Land banks and joint-stock land banks, the latter now in process of liquidation—has been an important influence in favor of lower rates of interest on farm mortgage loans, even though borrowers may have continued to patronize the life insurance companies, banks, or private lenders. Naturally, too, the rate on farm loans has declined in sympathy with the general decline in interest rates that has occurred.

The collapse of farm prices after the close of World War I started a dark epoch in the history of the farm mortgage. The older and more affluent farm states were able to stave off the collapse of farm credit for a decade, but the poorer areas were seized early by an epidemic of defaults. The great depression that followed the crisis of 1929 caused the debacle to become nation-wide.

By 1932, so many farmers were losing their property by foreclosure that the government had to come to the rescue. It not only greatly augmented the funds of the Land banks, which were now unable to sell their bonds to the public, but created the post of Land Bank Commissioner for the purpose of providing emergency credit. During the most critical period of the depression these two federal agencies virtually monopolized the farm mortgage loan business. Some 85 per cent of the loans obtained from them were used to stave off foreclosure by some other lending agency.[6]

After 1934, the relative amounts of the constantly decreasing new mortgage loans made by the several classes of lender resumed something like their predepression status, with the banks and insurance companies showing some gain over individuals and the federal agencies, although, because of their feverish activity during the worst of the depression, the latter still hold about 23 per cent of the total farm mortgage debt as compared with 14 per cent for ordinary banks, 19 per cent for insurance companies, and 44 per cent for individuals and other agencies.[7] The amount credited to individuals no doubt represents not so much a seeking after farm mortgage loans by the general investor as the sale of farms on credit and the taking back of a mortgage by the seller.

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[6] H. T. Lingard in *Agricultural Finance Review*, May, 1940, p. 29.

[7] U. S. Department of Agriculture, release dated December 10, 1947.

Special machinery was provided in Section 75 of the Bankruptcy Act whereby a farmer's debts could be legally composed or extended without his going through bankruptcy. Under the Frazier-Lemke Act (known as Subsection 75s), when an amicable composition cannot be arranged an appraisal of the property and a moratorium of three years are provided. During this period the debtor must pay rent to be applied to taxes and maintenance, with any balance going to secured creditors. At the end of three years, the debtor may satisfy the mortgage by paying the amount fixed by the appraisal, or either party may seek a new appraisal, and settlement may be made at the new figure. Otherwise, the creditor is then free to foreclose.

In addition to this federal legislation nearly all the states passed moratorium laws to postpone foreclosure of farm mortgages. It goes without saying that the typical delinquent debtor who saw little prospect of being able to meet his debt, even after the lengthy breathing spell provided, permitted the property to deteriorate to a serious extent.

The Federal Farm Credit Administration has sponsored the creation of local debt-adjustment committees. The adjustment varied in individual cases from an inconsequential restatement of the terms to substantial reductions in principal and interest.[8]

Though one's sympathies are stirred in behalf of distressed landowners, especially when they are victims of forces beyond their control, the fact remains that such legislation as the various state moratorium acts and the Frazier-Lemke Act serves to shake investors' confidence in the desirability of farm mortgage loans. No one can hazard his funds with any degree of confidence if there is the likelihood of their being deprived of the safeguards set up for their protection at the very time when such safeguards really count.

In spite of its far from flawless record, the farm mortgage still merits a place among acceptable investment media. Given land that has a high degree of productivity, located favorably with respect to primary and local markets, under competent management, and free from senior liens in the form of irrigation or reclamation district obligations, a mortgage loan that leaves a generous margin of safety with respect both to average earnings and to the value of the property can be regarded as a sound investment. The chief cause of worry in the best agricultural areas—and these are the only ones in which loans of true investment quality exist—is not occasional drought, flood, or insect plague, but the same periods of boom and depression we discussed in connection with mortgages in general. A national farm program that would substantially lessen this bugaboo would go a long way toward stabilizing farm credit.

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[8] Lingard, *loc. cit.*, p. 33.

The yield on the best farm loans is still considerably better than on corporate securities of good standing. Marketability is not so good. There is always the chance of selling a mortgage to one of the financial institutions, but the market is not so dependable as that for listed securities or for those traded actively over-the-counter. Banks, therefore, should limit their loans on farm mortgages to such of their funds as are not at all likely to need to be converted into cash. Insurance companies, in spite of having to buy in a distressing number of farms at foreclosure sales, have suffered little loss in disposing of them. This fact reveals the high degree of skill and caution which the best companies have demonstrated in making and managing farm loans. They are not worried over the poor marketability of their mortgages, for there is little or no occasion for parting with them before maturity. They also have the facilities for taking care of the periodical payments under the newer type of amortized loan.

As for the individual, about the same sort of conclusion should be drawn as we drew for mortgages as a class. Most persons lack the special ability to select farm mortgages wisely and to supervise the investment after it is made. For one whose training and talents lie along this line, well-selected first liens on farms might very properly form a part of an investment portfolio. They would help boost the low average return obtained from other investments, but because of their fixed value, if of true investment grade, they would not serve as a hedge against inflation. One can always employ some person or firm to manage his mortgage investments for him, but, of course, this depletes his income by the amount of the fees he has to pay.

The Bonds of the Federal Land Banks. The investor in obligations secured by farm property has two principal choices: the individual farm mortgages we have just considered or the bonds of the twelve Federal Land banks. The latter are the chief source of the funds loaned by the Land banks to farm owners through local cooperative agencies known as National Farm Loan Associations.

Since 1939, the banks have issued their bonds collectively, and they have always been the joint obligation of all twelve. However, they are not guaranteed by the government.

Though the fortunes of the Federal Land banks have varied directly with the "ups and downs" of agriculture, the goodness of the bonds has never been seriously questioned. During the dark days of the great depression of the early 1930's the government came to the rescue of the Land banks with substantial additional capital, which has since been repaid.

Unquestionably, the same policy would be followed if another similar economic debacle should occur.

The following factors are responsible for the high rating (and low yield) enjoyed by the Land bank bonds:

(1) They are the joint obligation of the twelve institutions.

(2) The total volume outstanding must not exceed 20 times the capital and surplus of the banks.

(3) They are supervised by federal authorities.

(4) They are fully backed by cash and mortgage loans. The latter cannot exceed 65 per cent of the normal value of the land and 20 per cent of the value of the improvements. A loan is granted only to an owner who is actually living on and operating the farm pledged as security.

(5) The principal is exempt from state and local property taxes and the interest from state income taxes.

(6) The mortgage given by a borrowing farmer to his local Farm Loan Association must be indorsed by the Association.

(7) The bonds are legal for trust funds in many of the states, and banks may use them as security for federal deposits.

Since they have a ready over-the-counter market, relatively short maturities, and bear a somewhat better return than fully tax-exempt securities, they are in demand by institutional investors.

E. INVESTMENT IN INCOME-BEARING PROPERTY

Inasmuch as the essential problems connected with the ownership of property have been covered in previous sections of this chapter, those phases of the subject need not be repeated here in any detail. It can be taken for granted that such investments should undergo the rigid tests respecting both the property and its occupants that we have suggested for mortgage loans. In fact, the owner of income-bearing property should be more strict in these respects than the lender, who has the owner to fall back on if things go wrong.

One of the most nearly ideal cases of investment in income-bearing property which has come to the authors' attention was that of a retired contractor who built a group of moderate priced homes in a university community. He erected the houses himself with the help of such workmen as he required, and, being a "jack of all trades," did virtually all the subsequent repair work himself. He attended to the rental of the houses and collected the rents. The duties involved were not arduous but were sufficient to provide him with a diversion. The houses were always in great demand, so the steady return he received was probably much greater than that which he would have derived from the selection and management of a portfolio of securities. The ordinary investor in income-bearing property is far from being so ideally situated. The same houses would have cost him more to construct, and he would afterwards have had to rely on high-priced mechanics for any repairs that needed to be made. If he were fully occupied with his business or profession, he would have found it difficult to devote the amount of time that management of property requires. The same situation exists in the case of investments in flats, stores, garages, and other income property of that general type. If such properties are to fill the requirements of a satisfactory investment, they must be acquired at a moderate cost, must be advantageously situated, and must be leased to a high grade of tenants. Such holdings will still require considerable personal supervision. They may appreciate in value, if conditions are favorable, but inevitable depreciation and obsolescence will be at work underneath in any case. Real property lacks dependable marketability, and there is always the specter of possible vacancies before one's eyes. To sum the case up in a few words: the prudently made investment is safe enough; there is a chance to secure appreciation, and the yield is usually better than that on securities; but marketability is not dependable, there is a good deal less freedom from care than with an investment in good bonds, and the yield is more likely to fluctuate.

The story is much the same regarding farms as investments, save that there is even less freedom from care than with the average nonfarm property. The typical tenant requires a great deal of advice and personal direction in meeting the manifold problems connected with the production of crops and livestock and maintaining the land and buildings in proper condition. The most successful investors in farms, as a rule, are men who have themselves operated farms successfully and still live in the vicinity of their land. There are always, of course, those exceptional persons who can manage farms successfully while living at a distance from their holdings, and others who, although they themselves have never actually engaged in farming, can make a success of farm ownership.

For the reasons we pointed out in our discussion of farm mortgages, the net return from farm operations is subject to peculiar hazards such as drought, insect pests, and floods, but most of all from low prices for farm products. We conclude, with respect to farm lands as investments, that a high-grade farm in a favorable location and bought at deflated prices is likely, over a period of years, to yield a reasonably dependable and sizable return. There is a chance for some appreciation. Marketability is not good and, as we have indicated, the adequate supervision of such an investment requires a more than ordinary amount of time, specialized knowledge, and managerial skill.

F. HOME OWNERSHIP

Though the question of buying a home versus paying rent is not strictly one of investment policy, it does play so important a part in the financial planning of the average middle-class family that it merits brief consideration here.

The answer to the question involves a number of nonpecuniary elements. Renters, as a class, move about more frequently than do home owners. The ties formed in school, church, and other places of neighborly association are more frequently broken. Home owners, as a class, have a deeper concern for the problems of the community. They take more pride in their houses and grounds. The fear of losing their homes will stimulate a higher degree of thrift in them so that payments can be made. The family in its own home, in short, is probably more stable, is better housed, has a deeper sense of security and a more genuine interest in the affairs of the community. There are, of course, numerous exceptions, both ways. Obviously, we are speaking in general terms.

From a strictly dollars and cents point of view, the case is not so clear. The following summary of the "pros" and "cons" may be helpful in reaching a conclusion.

In favor of home ownership:

1. The safety of one's investment, provided that it was soundly made.
2. The chance for appreciation and hedge against inflation in real property purchased in a growing community at a moderate price.
3. The elimination of any profit reaped by the landlord.
4. Freedom from rent raising.
5. Right to credit taxes and interest paid against one's personal income tax.
6. Freedom from the periodical moving expense which the typical tenant undergoes.
7. The fact that our laws exempt the seizure of a home for debt,[9] except that the public authorities have the right to sell it to satisfy unpaid

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[9] However, in some states, a judgment may be levied against a home that has not been homesteaded, or may be levied on value in excess of some minimum, say $5,000, even if homesteaded.

tax bills and holders of mortgages or trust deeds have the right of foreclosure.

8. The good security for a loan which a home affords in case an emergency arises.

Against home ownership:

1. Normally, houses have poor marketability. If the head of the family is transferred by his employer to another locality, he may have to take a heavy loss or play the hapless role of absentee landlord for a long period.
2. The same lack of marketability makes it difficult for an owner to sell his home when unfavorable changes in the neighborhood or in the city make such a step desirable.
3. Under the system of thin equities that prevails today, the loss of the owner's job or other misfortune is likely to cause him to lose his home and with it all the payments he has made on it.
4. Houses today are more subject than ever to heavy obsolescence, with the result that the market value of one's investment suffers.
5. Houses are usually bought or built at a time when the children of the family are still at home. In time, the parents find themselves with space far in excess of their needs but with property that has undergone a marked decline in value.
6. Lured by the slogan that the monthly payments on a house are "less than rent," many persons soon afterwards awake to the fact that the landlord has been paying the insurance, taxes, repairs, and special assessments, replacing worn-out plumbing and heating equipment, and bearing the burden of depreciation and obsolescence and the risks of a decline in the desirability of the property from external causes.
7. As home owners, people are usually not content with the sort of planting, wall decorations, and other features that they are willing to accept as tenants. As a consequence, they are constantly spending money for improving this or that feature of the home and thus adding a not inconsiderable increase to what shelter would cost them as tenants.

From a strictly financial standpoint, there is little doubt that the outlay for shelter made by the typical home owner exceeds that made by the typical renter. However, if homes have been bought and financed on advantageous terms this may not be true. Moreover, the intangible values derived from home ownership are so important that when a family has a definite prospect of being able to remain in the community where it resides it should buy or build a home.

One cannot stress too strongly the importance of attempting to buy the right house, at the right time, and in the right locality. By the right house we mean one that is suited in plan and equipment to the needs of the prospective occupants. The right time to buy is when values are not inflated. The right locality is one that not only contributes now, but, so far as one can foresee, will also continue to contribute, to the value of one's property. Naturally, in times such as prevailed during World War II and the post-war boom, one was forced to do the expedient, rather than the right, thing with respect to acquiring a home. Older houses should be bought with greater than usual caution and with adequate allowance for depreciation and obsolescence. Expert advice on the physical condition of an older house is usually worth its slight cost.

Some people have a special talent for building attractive homes, perhaps living in them for a brief time, and selling them at a substantial profit. This, of course, is not an investment operation, and only those especially qualified to manage such undertakings and to take the risks involved should engage in them.

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PROJECTS

1. Obtain the necessary blanks from a local lending agency and make the best amateur appraisal you can of some home with which you are familiar.

2. Assuming that you desire to build a home which, with the lot, will cost $12,000, and that it is necessary for you to borrow as much of this amount as you can, sum up the various plans and facilities available for financing the undertaking. Which would you be disposed to choose? Why?

CHAPTER 28 Selection of Preferred Stocks

Unsatisfactory Investment Characteristics of Preferred Stocks. We pointed out in Chapter 3 some of the characteristics of preferred stocks which make them as a class relatively unsatisfactory for investment purposes. We noted in particular their poor record in terms of stability in market price and certainty of income, and the unfavorable bargaining position of preferred shareholders when difficulties are encountered and reorganization becomes necessary. Nevertheless, despite these weaknesses, the total volume of preferred stocks outstanding is very large, and they are widely distributed in the hands of investors. One reason is, of course, that they typically offer better yields than are obtainable on bonds. It is true, also, that a few preferred stocks are properly entitled to a high investment rating.

The following discussion of the technique of preferred stock analysis will be from the point of view of the selection of sound high-grade issues. Our general remarks in Chapter 21 on substandard fixed obligations are applicable to preferred stocks as well as to bonds, with the added qualification that substandard preferred stocks, because of their inferior contractual position, are subject to particularly great hazards. They should be looked on as equities rather than as fixed obligations. Approached from this point of view, preferred stocks that have depreciated sharply in value through the passing of dividends will occasionally offer speculators large opportunities for profit. However, the average investor will be well advised to avoid them.

Technique Comparable to That for Bond Selection. Essentially the same technique that is used for testing bonds for qualities of safety and stability is appropriate for testing high-grade preferred stocks. Analysis should follow the same outline, but with stricter standards to offset the inherent weaknesses we have noted, in particular the fact that payment of preferred dividends is not mandatory on corporation managements. The extent of the added earnings and asset protection to be demanded from preferred stocks will vary with the nature of the industry (i.e., with the relative stability of earning power) and with the terms and the position in the capital structure of the particular issue, which serve to assure the investor that his right to dividends will receive full recognition by the management even under adverse conditions.

Industrial Variations. Industrial differences are seen most clearly in the favorable status enjoyed by many public utility preferred stocks, despite the presence of substantial amounts of first mortgage or debenture debt senior to them. Stable or expanding earning power may make it possible for investors to be reasonably assured of preferred dividends despite a "pyramid" of prior charges. Whereas we have considered minimum earnings protection for a first mortgage public utility bond to be five-year average interest coverage of 2 times, a standard of average coverage of interest charges *plus* preferred dividends of at least 2½ times is needed to afford adequate protection to a preferred stock dividend. It is most important that earnings protection for preferred stocks always be calculated on the basis of combining annual dividend requirements with all senior charges, rather than of simply determining the dollar earnings applicable to each share of preferred. The necessity for this method of calculation was illustrated in Chapter 21, where the misleading effect of calculating earnings coverage of interest on junior bonds alone was shown. Similarly, asset protection for purposes of preferred stock analysis should be measured on an over-all basis, relating the combined debt and preferred stock to property values, rather than simply on the basis of asset value per share of preferred. For electric utilities, a ratio of total debt and preferred stock to net property of as high as 70 per cent is generally viewed as satisfactory.

In contrast to the situation in most public utility industries, trends in railroad earning power have been sufficiently adverse and coverage of railroad bond interest has been by a thin enough margin so that railroad preferred stocks of investment grade are virtually nonexistent, except for a few guaranteed stocks of leased lines. As observed in Chapter 25, the average investor will find the latter issues in general difficult to analyze and possessed of unsatisfactory markets. Railroad preferred stocks should be required to meet the same rigorous tests as industrial preferreds.

For industrial preferreds, we suggest a minimum five-year average earnings coverage of 4 times interest charges plus preferred dividend requirements. This high standard will eliminate all but the strongest issues from consideration for investment purposes, which is our intention. Even when average earnings are highly satisfactory, results for the individual years should be scrutinized carefully in order to note the extent of fluctuation. This will help to measure the hazard that a poor year or a succession of poor years might offer to regular payment of the dividend. Another important measure bearing on this point is the adequacy of working capital to permit payment of preferred dividends without interruption in the event that earnings should prove unstable and temporarily fall below dividend requirements. A truly strong working capital position will serve to offset some deficiency in average earnings protection or in stability of earnings.

Terms of the Issue. As we have seen, the extra earnings and current asset protection demanded of preferred stocks, in comparison with bonds, is due mainly to the fact that payment of preferred dividends is not mandatory like bond interest. Instead, payment is to a large extent discretionary with corporation managements. Hence the analyst must study those factors which are likely to bear on the management's decision should payment of the preferred dividend be in jeopardy for any reason. In addition to the primary factors of earning power and adequacy of working capital, he needs to examine with special care the terms of the issue, its position in the capital structure, and the attitude and reputation of the management.

In considering the terms of the issue, an elementary distinction is that between cumulative and noncumulative dividend payments. It is sometimes argued that, if earnings coverage is adequate, this provision makes little difference. We are not impressed with this argument. Earning power may decline, and trustworthy managements may be replaced by self-seeking interests. Only the widest margin of safety coupled with a favorable yield can justify purchase of a noncumulative preferred for investment purposes. Even more basic than the requirement that dividends be cumulative is the requirement that preferred stock have an appropriate priority over common shareholders in the event of voluntary or involuntary liquidation of the business. Another important provision is that voting rights and representation on the board of directors be granted preferred shareholders in the event that dividends are passed. Most commonly such representation is granted when four quarterly dividend payments are in arrears. Still another desirable provision is that preferred shareholders through voting rights be able to exercise veto power over the creation of senior stock issues. Existence of a sinking fund providing for gradual retirement of the preferred issue is of less consequence but is also desirable for its beneficial effect in stabilizing market prices and in gradually strengthening the position of the shares remaining outstanding.

Call prices are naturally an important feature for the analyst to check, as also are any special privileges possessed by the preferred stock, such as additional participation in earnings and conversion or subscription rights. Despite their possible attraction, care should be taken that the investor does not pay an excessive price for such privileges, which may be extraneous to his purposes. If a preferred stock possesses the privilege of conversion into common stock on a favorable basis, so that in consequence its price has been bid up and the yield it offers is appreciably below that of nonprivileged preferreds of comparable quality, it should normally be analyzed as a common stock with special characteristics rather than as a fixed obligation.

Capitalization. The capital structure becomes of special importance when we are analyzing a preferred stock. No matter how stable the earning power of a business, its ability to pay preferred dividends regularly may be most uncertain if there is an excessive pyramid of senior obligations. Likewise, a substantial cushion of junior equity must exist. Generally speaking, for industrial concerns the total of funded debt and preferred stock should not exceed 25 or 30 per cent of total capitalization at market values. The percentage that is safe will depend largely on the stability of the revenues of the business. For operating public utilities, a ratio of 60 per cent would normally not be excessive.

Management. The position of the preferred stockholder is heavily dependent on the good faith of the management of the business, as well as on its managerial ability. His contractual rights are so limited that no margin of coverage is adequate if the integrity of the management is open to question. In consequence, careful attention to the general attitude and reputation of the officers and controlling interests is essential. Where the preferred issue has been outstanding for a long period of years, actual experience is usually the best answer to this question.

Instability in Market Price. One of the major objections to preferred stocks is their relative instability in market price. If the full dividend cannot be paid, it is usually omitted entirely, and the effect on market valuation of either this event or its anticipation is naturally severe. On the other hand, if the dividend remains secure beyond question, the lack of any maturity for the obligation will lead nevertheless to particularly wide swings in price as interest rates fluctuate, except where the existence of a nearby call price serves as a restraining influence. Lack of maturity dates likewise makes it impossible for the investor in preferred stocks to obtain, as the bond investor may, an average rate of return through the simple expedient of reinvestment of periodic maturities as they are paid. It is thus particularly important that careful attention be given to the *timing* of purchases of preferred stocks as well as to their investment quality. This point is illustrated by the table following, in which we show for the

PRICE RANGES OF SELECTED NONCALLABLE CUMULATIVE PREFERRED STOCKS, 1928–1942

	Eastman Kodak Company ($6)	National Biscuit Company ($7)	American Smelting and Refining Company ($7)	United States Steel Corporation ($7)
1928	132¼–123½	150 –137½	142 –131	147¼–138⅝
1929	128 –117	146 –140	138 –123⅛	144¼–137
1930	134 –120⅞	152 –142½	141 –131	151½–140
1931	135 –103	153¼–119½	138½– 75	150 – 94
1932	125 –104¾	142¼–101	85 – 22 *	113 – 51½
1933	130 –110	145 –118	99½– 31 *	105½– 53 †
1934	147 –120	148½–131	125 –100 *	99½– 67¼ †
1935	164 –141	158⅛–141⅛	144 –121	119¼– 73⅝ †
1936	166 –152	164½–153	152¾–136½	154¾–115½ †
1937	164 –150	167 –145	154 –122	150 –100¼ †
1938	173 –157	168⅛–150	140 –103	121 – 91¾
1939	183½–155	175 –147⅞	144 –127½	120⅞– 98½
1940	180 –155	176 –155	155½–122	130 –103½
1941	182½–160	175½–160⅞	155 –138¾	130 –105¼
1942	180 –170	166½–140	148¼–132½	119¾–107¼

* Paid only $3 50 in 1932 and $1 75 in 1933 Cleared all arrearages with total payments of $15 75 in 1934

† Paid only $2 00 per share in 1933, 1934, and 1935 Cleared all arrearages with total payments of $12 75 in 1936 and $16 25 in 1937.

period 1928–1942 the price fluctuations of four important noncallable industrial preferred issues, two of the highest quality and two which were considered of comparable quality at the start of the period but which later suffered from the effects of a temporary reduction in dividends.

Example of Preferred Stock Analysis. For practical illustration of the principles governing selection of preferred stocks, we shall analyze the investment qualities of the 7 per cent preferred stock of Liggett & Myers Tobacco Company and reach a decision as to its attraction for investors at the price of $170 per share prevailing on December 31, 1948. At this price the indicated yield to the purchaser was 4.12 per cent. The issue had long been recognized as of investment grade and had in fact sold as high during 1946 as 210, or a yield of only 3.33 per cent. However, in recent years a very substantial increase in this company's funded debt had been necessary to finance larger tobacco inventories at higher prices, and a review of the soundness of its preferred stock was timely.

(1) NATURE OF THE ENTERPRISE

The Cigarette Industry. Liggett & Myers had been for many years one of the three dominant manufacturers of cigarettes. It made other tobacco products, including smoking and chewing tobacco, but these were relatively of minor importance. The cigarette industry had over a long period enjoyed a remarkably steady and substantial growth in volume, and it had demonstrated a strong resistance to depression influences. The unit cost of the product was small, and in consequence heavy excise taxes imposed by the federal government and by some states had not visibly affected the growth trend. Cigarette output in 1932 fell only 13 per cent below that of 1929, and subsequently it had increased every year, including 1948. Reflecting changing social customs, aggressive promotion, and the habit-forming nature of the product, domestic consumption on a per capita basis had risen from 166 in 1914 to 426 in 1919, 978 in 1929, 1,318 in 1939, and 2,343 in 1947. Continued growth at this rapid rate was most improbable, but moderate and fairly regular gains in output were a reasonable expectation.

Although excise taxes were much the largest element in retail cigarette prices, the dominant and most volatile determinant of earnings trends in the industry was the cost of tobacco. Labor costs were small. Tobacco costs in 1948 were at a very high level, more than twice that prevailing in 1940, and a general increase in wholesale cigarette prices had been forced in July. Doubling of unit sales volume since 1940, when coupled with the increased costs, had required a very substantial inventory expansion throughout the industry, financed in large part by debt. Large inventories of leaf tobacco, currently amounting to about two years' supplies, had to be carried for aging and to assure a proper blend of different tobaccos. Manufacturers might thus be in a vulnerable position should a sharp decline in tobacco prices lead to general price cutting. However, though some decline appeared probable, government farm price support policies were expected to cushion its extent.

The Company. Liggett & Myers was third in size of the "big three" cigarette companies. Its leading brand, Chesterfield, accounted in 1947 for roughly 20 per cent of the total domestic market, compared with approximately 30 per cent for each of its two principal rivals, "Lucky Strike" and "Camel." The three brands had all improved their position in recent years in comparison with the rest of the industry. During the post-war period, however, Chesterfield's gains had lagged somewhat behind those of the other two. Experience suggested that advertising policies and expenditures were the chief factor in constantly shifting preferences of consumers among the leading brands. Each of the three major companies spent very large sums in advertising. It appeared that they would continue to hold their dominant positions except to the extent that "cut-price" brands might become important if tobacco prices declined drastically. During the difficult years of the 1930's, such brands had grown until they represented 15 per cent of total sales, but they were no longer of importance.

Cigarettes were believed to account for about 80 per cent of Liggett & Myers' total dollar sales volume, with 95 per cent of its cigarette sales concentrated in the one brand. The company possessed several well-known smoking tobacco brands, which were responsible for a relatively steady volume of sales. It also manufactured several brands of plug and fine cut tobacco and one brand of little cigars. Trends of consumption of the latter products were understood to be unfavorable. In terms of diversification of brands, Liggett & Myers' position was better than that of one major competitor, R. J. Reynolds Tobacco Company, but inferior to that of the other, American Tobacco.

Liggett & Myers Tobacco Company was organized in 1911 as one of the successors to the original American Tobacco Company, which was dissolved as the result of an anti-trust action. It was incorporated in New Jersey. Though its financial statements, certified without qualification by Haskins & Sells, were consolidated, the consolidation included only one wholly owned subsidiary, a Turkish leaf buying organization. Carried as investments were stock interests in a small domestic manufacturer of chewing tobacco and in Liggett & Myers Tobacco Company (Canada). Management of the business was in the hands of officers who had been connected with it for many years, and who also served as directors. They were favorably regarded on the basis of their conservative and successful past record. No person was known to hold as much as 10 per cent of the stock of the company.

(2) TERMS AND POSITION OF THE ISSUE

Provisions of the 7 Per Cent Preferred Stock. This issue had been outstanding since the organization of the company, and dividends had been paid regularly. The stock was of $100 par value, cumulative, and noncallable. Of 341,398 shares authorized, 225,141 had been issued and 16,400 were in the company's treasury, leaving 208,741 outstanding. In the event of liquidation, it was entitled to preference to the extent of par and accrued dividends. Although this was far short of the market price of 170, liquidation was a possibility so remote as to deserve little weight. No special pre-emptive rights were enjoyed, but voting rights of four votes per share attached to the preferred. This gave the stock 21 per cent of total voting power.

Capital Structure. As shown by the accompanying exhibit, the capital structure included a larger proportion of funded debt than we have con-

	Book Valuation (December 31, 1947)		Market Valuation (December 31, 1948)	
	Amount	Per Cent of Total	Amount	Per Cent of Total
5% Bonds, 1951	$ 12,886,600	4.2	$ 12,886,600	3.0
2⅝% Debentures, 1965	40,000,000	13.2	40,000,000	9.2
2⅝% Debentures, 1966	75,000,000	24.7	75,000,000	17.3
TOTAL FUNDED DEBT	$127,886,600	42.1	$127,886,600	29.5
Preferred Stock (market, 170)	20,874,100	6.9	35,600,000	8.2
TOTAL SENIOR OBLIGATIONS	$148,760,700	49.0	$163,486,600	37.7
Common Stock (market, 86)	154,504,000	51.0	270,000,000	62.3
TOTAL INVESTED CAPITAL	$303,264,700	100.0	$433,486,600	100.0

sidered desirable for an industrial concern, and in addition the company had been borrowing on a short-term basis under a $100,000,000 revolving credit established with a group of banks. Bank borrowings were $36,000,000 at the end of 1947. However, the presence of heavy debt was offset in part by the stability of the industry and its favorable trend of growth. This situation was reflected in the relatively favorable ratio of capitalization at market value as compared with book value. It was also true that the company traditionally had maintained a very satisfactory capital structure, and the present debt was a consequence not of speculative financial management but of an extraordinary growth in sales volume plus sharply higher leaf tobacco prices.

The three issues of funded debt were unsecured, and they contained no restrictions that could be expected to affect the preferred stock adversely, other than possibly the sinking funds on the 2⅝'s. These requirements were to be at the rate of $2,000,000 annually on the 2⅝'s of 1965, beginning in 1955, and at the rate of $3,750,000 annually on the 2⅝'s of 1966, beginning in 1956. In connection with the 2⅝'s, which were held by insurance companies, the company also covenanted to maintain current assets of (*a*) at least twice current liabilities and (*b*) $125,000,000 in excess of current liabilities plus the par value of outstanding debentures not included in current liabilities. The small publicly held issue of 5's of 1951 had no restrictive provisions. It was rated "triple A" by Moody's and was quoted at 107½, offering a yield to maturity of only 2 per cent.

(3) EARNINGS PROTECTION

Past Coverage of Charges and Preferred Dividends. Earnings exhibits are presented in condensed form in order to show a ten-year period, and because greater detail would not be pertinent to our present purpose. Data from SEC reports were available. The figures presented for 1938–1947 could be supplemented by interim earnings reported for the first nine months of 1948. These interim figures showed sales of $415,194,000, up 9.6 per cent from the like period of 1947, and net income of $21,200,000, up 28.3 per cent. The third quarter had made a particularly favorable comparison, with net income of $9,202,000, reflecting the beneficial effects of the price increase in July. An extra dividend of $3,137,000 had been declared on the common stock, payable December 1.

LIGGETT & MYERS TOBACCO COMPANY

Condensed Income Account

(in millions of dollars)

Years Ended Dec. 31	Net Sales *	Operating Income	Per Cent Margin of Profit	Income before Charges	Interest and Other Fixed Charges	Income and Excess Profits Taxes †	Net Income
1938	237.8	24.5	*10.3*	26.1	1.3	4.2	20.6
1939	232.9	24.5	*10.5*	26.0	1.3	4.0	20.7
1940	246.3	27.8	*11.3*	28.4	1.3	6.8	20.3
1941	275.1	30.4	*11.0*	31.3	1.3	12.1	17.9
1942	294.4	32.9	*11.2*	33.7	1.4	16.6	15.8
1943	347.3	36.4	*10.5*	36.7	1.6	18.9	15.7 ‡
1944	374.0	33.1	*8.9*	33.4	1.6	16.5	14.8 ‡
1945	399.2	26.6	*6.7*	27.2	1.9	10.4	14.9
1946	464.5	34.5	*7.4*	35.0	3.7 §	12.9	18.4
1947	513.8	41.8	*8.1*	42.5	3.9	15.7	22.9

* Sales include large internal revenue excise taxes. Such taxes were approximately $259,000,000 in 1947

† Excess profits taxes, net of post-war credits, were 0.3 in 1940, 3.8 in 1941, 7.0 in 1942, 9.4 in 1943, 7.0 in 1944, 0.9 in 1945.

‡ After 0.5 provision for contingencies.

§ Including 0.8 interest on federal income taxes for prior years.

The earnings exhibits showed an impressive record of stable earning power, particularly if adjustment is made for the effect of the high excess profits taxes prevailing during the war years. The coverage of preferred dividends was by a very wide margin indeed, and the ratio of earnings to fixed charges plus preferred dividends was comfortably above the average of 4 times which we selected as a conservative standard. If conditions deteriorated, large savings in cash resources could be effected by reducing common dividends. However, the interim 1948 figures indicated substantial improvement for the third successive year.

LIGGETT & MYERS TOBACCO COMPANY
Earnings and Dividend Record
(in millions of dollars)

Years Ended Dec. 31	Net Income	Preferred Dividend	Common Dividend	Balance to Surplus	Times Fixed Charges Earned *	Times Charges and Preferred Dividends Earned *
1938	20.6	1.5	15.7	3.4	*16.9*	*7.8*
1939	20.7	1.5	15.7	3.5	*16.9*	*7.9*
1940	20.3	1.5	15.7	3.1	*16.6*	*7.7*
1941	17.9	1.5	15 7	0.7	*14.8*	*5.9*
1942	15.8	1.5	11.0	3.3	*12.3*	*5.9*
1943	15.7	1.5	11.0	3.2	*11.1*	*5.9*
1944	14.8	1 5	11.0	2.3	*10.2*	*5.3*
1945	14 9	1.5	11.0	2.4	*8.8*	*4.9*
1946	18.4	1.5	12 5	4.4	*6.0*	*4.3*
1947	22.9	1.5	14 1	7 3	*6.9*	*5.0*

* After income and excess profits taxes Charges include interest on bank loans and, in 1946, 0 8 interest on federal income taxes for prior years

On the other hand, two adverse factors were apparent. First, the margin of profit on sales had failed to recover its stable pre-war level. Second, the heavily increased fixed charges, though still in themselves conservative, had considerably reduced the ratios of coverage. When it became necessary to add to them annual sinking fund requirements of $5,750,000 in 1956, the company would be faced with total annual obligations, including preferred dividends, of more than twice the 1947 level.

(4) ASSET PROTECTION

Financial Tests. Pertinent balance sheet items and ratios are summarized in the accompanying five-year comparison. The position shown was very strong, despite the large increase in debt, but it rested almost entirely on inventories. These inventories were carried at average cost, following the long-established custom of the company. New averages were established each month as purchases were added and withdrawals were deducted. On the basis of leaf tobacco used in 1947, in the amount of $156,000,000, the year-end inventory was equal to a two-year supply. Leaf tobacco costs averaged higher in 1948 than in 1947. As remarked before, tobacco prices at the existing level were dependent in part on government farm price support policies.

LIGGETT & MYERS TOBACCO COMPANY
Balance Sheet Data
(in millions of dollars, as of December 31)

	1947	1946	1945	1944	1943
1. WORKING CAPITAL					
Cash & U. S. Gov'ts	16.4	13.0	17.5	14.4	13.8
Receivables	17.7	15.7	13.0	21.3	18.1
Inventories	316.5	297.6	253.3	209.0	198.3
Other current assets . .	0.7	0.5	0.9	0.8	0.9
TOTAL CURRENT ASSETS. .	351.3	326.8	284.7	245.5	231.1
Notes payable	36.0	18.0	57.0	55.5	41.9
Accounts payable ...	3.3	3.3	1.5	2.5	2.5
Accrued taxes	20.7	17.8	15.8	23.7	26.1
Other current liabilities . ..	1.6	1.6	1.1	0.6	0.8
TOTAL CURRENT LIABILITIES......	61.6	40.7	75.4	82.3	71.3
NET WORKING CAPITAL..........	289.7	286.1	209.3	163.2	159.8
Current ratio........ . .	*5.7*	*8.0*	*3.8*	*3.0*	*3.2*
Quick ratio	*0.3*	*0.3*	*0.2*	*0.2*	*0.2*
% inventories of current assets..	*90.1*	*91.0*	*88.9*	*85.1*	*85.8*
N.w.c. times funded debt........	*2.3*	*2.2*	*4.0*	*12.6*	*12.4*
2 OTHER ASSETS					
Gross property................	34.6	30.5	28.6	28.8	28.8
Less. reserve for depreciation. ...	22.7	22.4	22.4	22.0	21.0
NET FIXED ASSETS...............	11.9	8.1	6.2	6.8	7.8
Investments, etc...............	1.3	1.6	1.9	4.7	4.2
3. CAPITAL STRUCTURE					
Funded Debt	127.9	127.9	52.9	12.9	12.9
7% preferred (at $100)... . ..	20.9	20.9	20.9	20.9	20.9
COMMON STOCK (thousands of shares)..........	3,137	3,137	3,137	3,137	3,137

Property. As shown by the financial exhibit, property investment was relatively unimportant. Manufacturing plants were located in Durham, North Carolina, and in Richmond, St. Louis, and San Francisco. Leaf tobacco redrying and handling plants were located in various tobacco-growing areas in the United States and in Greece and Turkey. A $10,000,000 plant expansion program had been undertaken in 1948, the principal projects being new cigarette factories at Durham.

(5) MARKET TESTS AND COMPARISON WITH OTHER ISSUES

Marketability. Marketability of the Liggett & Myers preferred was satisfactory. It was listed on the New York Stock Exchange. However, normal transactions were small, as was to be expected in a stock of investment grade with relatively few shares outstanding. Sales on the exchange for the year 1948 were 8,620 shares, of which only 400 had changed hands in December.

Stability. Price fluctuations for the preceding twenty years are shown in the table following.

ANNUAL PRICE RANGES, 1929–1948

1929	140 –125	1939	180 –152
1930	146 –127⅛	1940	188⅜–169
1931	146 –110	1941	189 –174
1932	132 –100	1942	177 –164½
1933	140⅛–121	1943	182½–171
1934	152½–129	1944	182 –174½
1935	167½–151	1945	198 –181
1936	170¼–160	1946	210½–183
1937	175 –151	1947	191¾–169
1938	176½–157	1948	174¾–157

Despite the wide range between the low of 100 in 1932 and the high of 210 in 1946, this issue had had a comparatively stable price history. The major swings had been primarily the result of fluctuations in money rates. For the past fourteen years the stock had not sold below a price of 151, and in only two of these years had it exceeded 191. Its range had thus been roughly 10 per cent in either direction from the current price of 170.

Comparison with Other Issues. The yield of 4.12 per cent offered by the Liggett & Myers preferred compared satisfactorily with yields then available from other high-quality issues. On the basis of December 31, 1948, market prices, yields on similar preferreds were: International Harvester Company, 4.24 per cent; Quaker Oats Company, 4.11; Corn Products Refining Company, 4.09; American Can Company, 4.05; United States Gypsum Company, 4.05; Philadelphia Electric Company, 3.95. The preferred stocks of the other two major cigarette companies offered yields ranging from 4.24 to 4.44 per cent but appeared statistically to be somewhat inferior to Liggett & Myers.

Compared with high-grade bonds, the Liggett & Myers stock offered a yield approximately 1.30 per cent greater. Moody's index of yields of triple A corporate bonds was 2.76 per cent, and its index of double A bonds was 2.85 per cent. This differential of 1.30 per cent was somewhat greater than had customarily prevailed in recent years, and it served to offset in a measure the disadvantages associated with lack of a maturity date.

SUMMARY OF SIGNIFICANT POINTS

LIGGETT & MYERS 7 PER CENT PREFERRED STOCK

Points of Strength

Strongly situated and growing industry
One of three dominant companies
Conservative and successful record of management
Excellent earnings coverage, both average and minimum
Favorable trend in current earnings

Points of Weakness

Tobacco prices at high level and dependent in part on government support
Large inventories
Heavy debt
Lower margin of profit in recent years

The adverse factors in the picture were of importance, but they were still heavily outweighed by the favorable points, and the issue was entitled to a high-quality rating. The company's earning power was so great that the heavy debt seemed to pose no serious problem. Moreover, it was probable in view of the management's conservatism in the past that, when conditions were more favorable in the stock market, additional common stock would be offered to strengthen the company's financial position. The preferred stock was suitable for investors able to diversify their portfolios broadly and to disregard wide price fluctuations likely to accompany changing money rates. Its current price and yield also appeared satisfactory, in relation to market prices prevailing during the past ten years and to yields available on other high-grade preferred stocks and high-grade corporate bonds.

SUPPLEMENTARY READINGS

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Lagerquist, W. E., *Balancing and Hedging an Investment Plan,* Ronald, New York, 1941, pp. 149–153.

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PROJECTS

1. Select one of the better-known industrial preferred stocks. Analyze it and present your conclusions regarding its investment merit and attractiveness at the current price.

2. Trace the price behavior of ten actively traded preferred stocks, of the best grade, since the end of 1929.

CHAPTER 29 Selection of Common Stocks

Emphasis Transferred from Safety to "Value." As we have observed in discussing the theories underlying investment in common stocks, the technique of analysis and selection of equity securities differs materially from that appropriate to fixed-income obligations. The question of purchasing shares in the ownership of a business cannot be decided according to the standards employed in passing on the merit of a loan. Whereas the lender attempts mainly to make sure that an adequate margin of protection exists, the prospective owner must go farther and estimate the fair value of the business. Instead of *is it safe,* the investor in equities inquires *what is it worth?*

This does not mean at all that we are to abandon considerations of safety in the analysis of equities, no more than we can afford to overlook the price paid for or "value" obtained in a fixed obligation. We have recognized, however, a significant shift in emphasis, in reflection of fundamental differences in the two broad classes of securities, and in the purposes for which they are employed.[1] Though the "common stock approach" to investment does not disregard safety, it subordinates safety and stability to a high income return or a chance for appreciation in price. It assumes that the proper method of handling the risks associated with the ownership of securities is not primarily avoidance of loss, but provision of opportunities for profit to offset the risks of loss. In such an approach, heavy emphasis must naturally be placed on obtaining sound value (i.e., on the *price* at which the commitment is made).

Heavy Dependence on Anticipation of the Future. Such emphasis is made the more imperative by the large and frequently irrational fluctuations in market price that are typical of common stocks. Among numerous basic influences contributing to this instability in price are the substantial business risks assumed by the stockholder, the erratic nature of dividend income, and the lack of any assurance that principal may be withdrawn on a fair basis. These influences are all related, however, to one central factor, namely, the high degree to which the value of any business venture rests on essentially unpredictable future developments. Relatively heavy dependence on anticipation of the future is a distinguishing, and a troublesome, characteristic of the analysis of common stocks.

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[1] Though we shall in the present chapter refer to common stocks alone, it will be understood that our observations in general apply also to other equity-type securities.

Stress on prospects for the future makes necessary relatively great reliance on personal judgment and the interpretation of intangible and conflicting qualitative factors. To the extent that judgment must be substituted for the application of specific investment standards, the actions taken are exposed to emotional bias and, particularly, to the unfortunate influence of the general psychological aberrations which periodically sweep the stock markets. The rapidity with which far-reaching change may take place in the appraisal of the future as reflected in prices of common stocks is a constant menace to the investor who requires an element of stability.

Valuation of Common Stocks Inescapably Rough. Fluctuations in the prices of many common stocks are, in fact, habitually so great as to preclude serious investment interest. Even among relatively stable issues, the normal extent of fluctuation is sufficient to add materially to the difficulties involved in analysis and to render it a far less satisfactory process than is analysis of fixed obligations. The analyst, forced to give a much heavier weight to complex and changing factors bearing on the future, finds himself effectively barred from arriving at any really accurate appraisal of value.

That analysis of common stocks is an imperfect and often treacherous process is commonplace enough knowledge, but hardly an insurmountable obstacle once the fact is appreciated. More surprising is the degree to which such analysis continues to be abused in practice by those unwilling to recognize its limitations or confused by its complications and misled by hope of gain or fear of loss. Events have repeatedly demonstrated the importance of a clear conception of the purpose for which common stocks are being employed in each instance and the need for an intelligently critical approach to their selection. This need is becoming progressively more urgent along with the growing importance of common stocks as a class.

Unsound Approaches to Stock Selection. One prevalent approach to the selection of common stocks is only too well expressed in the frequent compilations of "fast movers" published by financial journals and advisory services, listing those stocks which have shown the widest fluctuations in price in the past and hence are supposed to offer the largest opportunities for appreciation in the future. Appropriate as such an approach may possibly be for the professional speculator, it is hardly the prelude to an investment operation. Appreciation in price is a legitimate investment objective if based on careful appraisal of earnings and dividend prospects and supported by evidence of sound value at the purchase price, but it is another matter entirely when it involves choice of highly volatile issues to be passed from hand to hand with the hope someone else will own them when their prices decline.

Another popular approach avoids such frank gambling by selecting only "blue-chip" common stocks, meaning issues of the limited blue-blooded group representing ownership of the largest and strongest corporations, in the belief that securities of this type are inherently "safe," so that in the event that appreciation does not develop no harm is done. The relation of the price paid to earning power and dividends is often given little attention because of the high quality of the issue. The ratio of price to earnings may be calculated, but only as a gesture, for whatever it happens to be is likely to be accepted as appropriate since it is assumed to be the verdict of informed investors. Price and value are thus held to be one. The investor's return is expected to be obtained from successful anticipation of a general trend in stock prices or from long-term growth in the particular industry, and a modest dividend yield is generally accepted on this account.

If we permit the unwarranted assumption that the investor is successful in confining his selections to genuinely strong situations and is not misled by impressive but hollow reputations, we must still consider any approach stressing quality to the exclusion of value to be extremely hazardous. With common stocks, as the most cursory examination of past price ranges will reveal, the safety of a commitment cannot be considered apart from the price paid. The General Electric Company whose common stock sold at 8½ in 1932 was just as strongly situated a company as when the same stock sold at 95 in 1930. The investor who paid 95 in 1930, however, was unable to liquidate at any time in the ensuing decade without loss of a minimum of 30 per cent of his principal, and most of the time much more, while receiving an income return materially below what he might have obtained on highest grade bonds.

Financial strength may be a sufficient guaranty of safety in the case of a bond, for so long as a company is thoroughly solvent (i.e., able to meet its obligations when they fall due) such an investment is safe, though possibly far from stable in price. However, for a common stock, with which there is no obligation as to current income or redemption, solvency is a much less valuable criterion. The *company* issuing a common stock may be tremendously strong financially, yet its common stock may be distinctly hazardous at the prevailing price. The investor can hold a bond to maturity in order to collect the fixed amount promised, but the only way to determine the principal amount of capital invested in common stocks is through current market values, and the way to obtain it is through sale. Thus, price is by no means a minor consideration.

The owner of a private business is able to give consideration when valuing it to both the income in prospect and the amount for which its assets could be liquidated should operations prove unprofitable. The owner of a common stock, on the other hand, must value it primarily on the basis of the income he expects to get from it, for he is rarely in a position to secure the liquidation of the business in the event that it proves unprofitable. If he wishes to withdraw his principal, he is dependent entirely on what other persons are willing to pay for his stock, probably an amount altogether different from his proportionate share in the actual realizable value of the company's assets were it possible to undertake liquidation.

Three Possible Sound Approaches. Though our comments thus far have been mainly negative, it appears to us that there are at least three possible sound approaches to the selection of common stocks for purposes of investment, as distinguished from mere speculation on swings in price.

One obvious approach is to confine selection to those issues meeting relatively strict tests of stability in income and market price, somewhat after the fashion of senior obligations, yet offering a more attractive yield. Unfortunately, such an approach in recent years has been handicapped greatly by a scarcity of issues that could qualify. At one time, common stocks of this description were fairly numerous. Often, supported by steady dividends, their price would not be seriously affected by temporary inadequacy of earnings. More recently, however, widespread impairment of corporate earning power, the tendency to alter dividend rates at frequent intervals, and the volatile attitude of purchasers which has made prices sensitive to even moderate changes in earnings have seriously reduced the number of really stable issues available.

A second, more popular approach involves the selection of "growth stocks," or issues of companies believed to possess attractive possibilities for growth. Expansion of the business over a period is expected to provide substantial return not only in enlarged dividends but also in the form of appreciation in price. We have already at an earlier point remarked on the practical complications met in execution of this theoretically sound approach. Though such a plan does offer considerable promise in the hands of experts, the hazards involved in selection of growth companies in the early stages of their growth are obviously extremely large. In turn, later on, after the presence of qualities leading to growth has been demonstrated convincingly, such stocks, because of widespread popular demand, are most unlikely to be available at attractive prices except under conditions of general depression.

The third and, in our opinion, the most practical approach to selection of common stocks for investment requires that in order to be of interest they qualify as *undervalued* (i.e., that their market price be something less than a reasonable valuation of the income that may conservatively be expected over a period). The criterion is sometimes stated to be *reasonableness* in price, but, in view of the roughness of the calculations and the magnitude of the fluctuations in price ordinarily involved, we believe that insistence on some degree of undervaluation is preferable. Such an approach should serve in the long run to reduce the likelihood of material loss of principal and to enhance opportunities for profit.

The common stocks of most sound companies, stable or unstable and with or without significant growth prospects, normally become available from time to time on a basis clearly attractive in relation to *average* earnings and dividends, as distinguished from conditions of the moment. How often such opportunities will develop one cannot prophesy with any certainty, but patience assuredly is a requisite of the prudent investor. It is elementary that common stocks, fluctuating as they do over wide ranges in price, cannot always be available on an attractive basis.

One finds it, of course, vastly easier to suggest purchase of common stocks on an "attractive" or "undervalued" basis than to ascertain when these conditions are met. In subsequent pages we shall outline certain general standards designed to be of assistance in this respect, but it is still true that precise measurement of a quantity so uncertain and changing as the intrinsic value of a common stock is utterly impractical. Fortunately, granted adequate diversification, precision is not necessary for the investor, so long as he may act with reasonable assurance that the price paid is not in excess of a rough zone where more than adequate value based on prospective average income return is believed to exist.[2]

Significance of the Position of the Stock Market as a Whole. Attractive prices may prevail for individual common stocks or for the stock market as a whole. The most favorable buying opportunities are likely to exist when pessimism is general and the stock market as a whole is depressed. Consideration of the present position of the market is therefore a pertinent factor. We must, nevertheless, despite the highly significant influence of the general market, recognize its equally important lack of predictability and make our actual decisions primarily on the basis of individual stocks and on tangible factors of valuation rather than expectations of price movements. Regardless of the emphasis that in many quarters is placed on "timing" of purchases and sales according to forecasts of prospective general security price movements, the investor is forced to recognize most such operations as predominantly speculative. Violent price fluctuations are hardly to be disregarded, but judgment of the investment position of the stock market should be primarily on whether stocks are generally inflated or generally depressed (i.e., whether the market is high or low on the basis of the relation between market prices and average dividend expectations of leading stocks), and not on the basis of any forecast of price trends.

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[2] Practical examples of the application of the rough general standards set forth in the present chapter are provided in Chapters 30 and 31.

At the same time, instances of apparent individual undervaluation in periods when business is prosperous and investors generally are optimistic are open to suspicion of serious undisclosed weaknesses. Such suspicion would attach especially to apparent gross undervaluation of average earnings and dividends based on objective tests. Undervaluation *relative* to similar issues, which exists in greater or lesser degree at all times, is of less importance if not extreme.

Implicit in an approach to common stocks that emphasizes their volatility and the importance of assurance that commitments are made on a favorable price basis is, of course, a need for regular review of prices prevailing on issues owned, together with a willingness to consider sale when it appears that the issues are becoming clearly overvalued. Such an attitude need not at all imply a trading viewpoint, but instead a desire to reduce risks of price decline when they become excessive. Moreover, capital gains must occasionally be realized if they are to offset effectively the potential losses involved in equity ownership.

Standards of Quality Needed. We have not intended by the foregoing emphasis on the element of price to minimize the equally fundamental importance of selecting issues of sound quality. The substantial hazards to which common stocks are subject make it essential that consideration be limited to issues meeting reasonable standards of quality, which it is plain enough large numbers of stocks can never do. Assumption that at the right prices all stocks become sound investments is just as absurd as belief that stocks of high quality are sound investments regardless of price.

We are, therefore, in need of standards to enable us to judge quality as well as standards for determining the appropriateness of price. Recognizing that all objectives in the selection of common shares are not the same, we still are in need of practical general standards. Because of the numerous elements that enter into the value of a common stock and the even larger number that investors sometimes think enter in, a distorted view of the requirements of analysis is too often had, and there is need also that standards be simple.

As a matter of fact, in view of the approximations and uncertainties that are bound to exist even after analysis is complete, it is sound practice with common stocks generally to avoid elaborate refinements of data and complicated standards. A significant benefit of such simplification in methods of analysis is encouragement of the exercise of judgment rather than search for interminable detail of limited practical utility.

Two Fundamental Questions. Two fundamental questions face the analyst who undertakes appraisal of common stock. He needs to determine (1) what the company is likely to earn and pay on its stock, and (2) what the basis of valuation of these earnings and dividends should be. Subsidiary questions group themselves around these two and serve to shape the essential course of the inquiry.

The Question of Earnings and Dividends. At the heart of the problem of analysis is the question of earnings and dividend payments. How much will the company earn, and how steadily? What is likely to be its policy in the declaration of dividends? What degree of certainty attaches to the prospect that is visualized? What alternatives exist? The first task of analysis is to clarify these points.

It will be noted that we refer both to earnings and dividends. In theory, the value of a common stock as an investment is derived from its dividends, present and prospective, for the stockholder cannot spend undistributed earnings. For this reason, the dividend rate was at one time generally accepted as the dominant factor in the valuation of all but highly speculative common shares, and to a large extent this emphasis has continued in the security markets of other nations.

In recent years, however, many purchasers of common stocks have come to attach a much greater importance to reported earnings on the reasonable basis that, after all, dividends are the product of earnings and over a period tend to be adjusted in harmony with the earning power shown. Even should distributions lag far behind reported earnings, the excess earnings are deserving of some consideration in valuing an enterprise, for normally they either are being employed to reduce debt or are being reinvested in the business and should, if managed properly, be reflected in increased ability to pay dividends later. Another significant point is that earnings are more sensitive to changing conditions and thus are likely to reflect improvement or decline in the position of a company well in advance of adjustments in the dividend rate.

On the other hand, there are many slips between the ploughing back of earnings and the reaping of profits from the operation. What is nominally reinvestment of undistributed earnings may actually, whether or not it is realized at the time, amount to nothing more than an expenditure necessary to restore to efficient operation an obsolescent plant on which depreciation was inadequately computed, or similarly to maintain the concern's competitive position, without any prospect of expansion in earning power. Too many huge book surpluses in the past have failed utterly to be reflected in increased earnings or even to provide for stable dividends during periods of temporary depression.

Another danger associated with emphasis on earnings at the expense of dividends arises from the far less stable nature of earnings. Investors tend to project current results or current trends into the future and often have difficulty in focusing their attention on an average expectation in the face of sharp year-to-year changes. This excessive emphasis on the factor of current earnings has been an important influence contributing to wide fluctuations in the prices of common stocks.

Partly for this reason, the analyst in appraising a common stock asks not only how large average earnings may conservatively be expected to be, but also how stable they may be expected to be. A stable income is clearly preferable to an equivalent total income received in varying amounts at irregular intervals. In estimating the size and the stability of future earnings and dividends, as the analyst perforce must do regardless of the attraction of current earnings and dividends, the basis of estimation must, of course, be actual experience. The only realistic foundations are demonstrated earning power and actual dividend payments, though these factors are naturally supplemented by others we shall touch upon.

The Question of Valuation. After the analyst has arrived at an approximation of the earnings and dividends that may conservatively be expected, he faces the problem of determining an appropriate basis for their valuation. As we have indicated, this valuation should take into account both earnings and dividends; that is, the analyst must look to both the *price-earnings ratio* and the *dividend yield* in order to judge the reasonableness of a given price.

The earnings ratio and yield basis selected as appropriate will mainly reflect qualitative factors, but there are certain tangible guides such as prevailing money rates and the basis of valuation that has been customarily applied to the stock by the investing public in the past. Money rates, as measured by the yields available on sound long-term bonds, naturally play a significant part in determining the size of the yield needed to induce investors to undertake the added risks attendant on the purchase of common stock. Their role is not decisive, however, despite its obvious importance, for other and contrary influences also carry great weight, notably the degree to which the yield offered by stocks is felt to be well secured or is believed in danger.

The latter factor of confidence or lack of confidence in future developments, either concerning the individual company or common stocks as a class, is, of course, often subject to grotesque exaggeration in actual practice. The analyst must consider it, but he should attempt to do so on a factual rather than an emotional basis, and he should subordinate it to other factors not dependent on prediction of the future, such as demonstrated stability in earning power, financial strength, or a particularly capable management.

Along with the relative assurance with which estimated earnings and dividends may be anticipated, there must be considered the seriousness of any difficulties that might arise should possible adverse influences develop. Some attention will also be given to possible favorable factors that could develop, for the analysis of common stocks must give weight to opportunities for profit as well as to the hazards present. To repeat an earlier statement, we look on the selection of common stocks for investment as a weighing of opportunities for profit, through high return or long-range appreciation in price, against risks of loss. The earnings ratio and yield are mathematical yardsticks expressing judgment on relative opportunities for profit and risks of loss in the particular situation.

In an effort to minimize reliance on individual judgment in the establishment of stock values, various mechanical methods of valuation have been devised which rest on detailed mathematical computations of the present value of future dividends and frequently obtain what purport to be precise answers. However, since the basic data employed can usually be nothing more reliable than predictions of the future and since money rates and other ingredients in valuation change materially from time to time, there would seem to be little beyond academic interest in such refinements.

The valuation of common stocks is likely to remain a troublesome problem principally for the reason that in actual practice it is so largely a psychological process, reflecting the prevailing optimism or pessimism of buyers and sellers. Although we must recognize that business is dynamic, and our study of a given enterprise may be out-of-date by the time it is completed, it is still true that intrinsic value rarely changes with anything like the rapidity of changes in market valuation.

The analyst, for this reason, must be reconciled at the start to the fact that the value which he determines to be appropriate and the actual price set by the market are not likely to coincide for long. He should beware of the assumption that logic is bound to prevail, for the stock market is anything but coldly logical, except from a very long-range point of view. Instead, it is an auction, and the participants may be expected to give expression to their hopes, fears, and prejudices to such an extent that the market valuation of a given stock or of common stocks as a whole may be on a highly irrational basis for prolonged periods. Marketwise, the current price of a security is itself no small factor in determining future prices, for both owners and prospective purchasers become habituated to this valuation. The attitude of professional market operators may also be important in some instances. Thus, although a wide disagreement between the valuation placed by the market and that indicated by the analyst's study is ample justification for careful rechecking of the analysis, the analyst should not concede to the market any supernatural ability to register true value.

The behavior of stock prices in response to various psychological stimuli is a fascinating subject, and one not entirely to be disregarded by the investor, for he can withdraw his capital only at the market price. However, investment is not a guessing game, and attempts at the timing of purchases and sales to take advantage of short-term fluctuations anticipated in stock prices are not investment operations. The investor aims to make reasonably sure that the price he pays is attractive on the basis of intrinsic value, and he considers the desirability of sale when a stock appears clearly overvalued. Though he notes their implications, particularly if they are carried to extremes, he does not speculate on the emotional trends of other investors.

One characteristic of stock price behavior that is of significance in the selection of issues for investment is the tendency of the market to pay different prices for issues of apparently equal quality simply because one issue is more actively traded or more popular than another. Popularity may be the product of a long and sound reputation, of a spectacular growth trend, of a low price per share which attracts the uninformed and the small purchaser, or simply the result of greater-than-average fluctuations in price which have attracted speculators. Whatever the cause, a large measure of popularity tends to force the price of an issue to extremes, both through eager buying in prosperous periods and through heavy liquidation in panics. In the case of strong "blue-chip" investment issues, where speculation is a minor factor, the result of insistent popular demand and a limited supply is that price-earnings ratios and yields almost invariably compare most unfavorably with ratios and yields prevailing upon sound less-known issues. Such so-called "scarcity value" does not pay dividends and only rarely lends worth-while stability to market prices.

Tests of a Common Stock. A practical method of approach to the valuation and selection of common stocks is outlined below. The general steps proposed are naturally similar to those employed in the analysis of corporate bonds and preferred stocks, for we are utilizing the same financial statements and studying businesses facing the same problems. Actual analysis, however, is from a distinctly different point of view. Instead of constantly thinking in terms of the protection afforded by the different factors, we are here concerned with the manner in which each factor adds to or detracts from value. The principal points to investigate are:

1. Nature of the enterprise.
2. Capital structure.
3. Financial position and asset value.
4. Earnings and their valuation.
5. Dividends and their valuation.
6. Market tests and comparison with other issues.

To an even greater extent than with bonds, such an outline should be employed chiefly as a check list to make sure that all major factors are considered. Relatively few arbitrary standards may be set up which are applicable to common stocks in general, and it is essential that our approach be flexible and adaptable to the individual case. Simplicity of treatment is particularly desirable in view of the complex issues presented.

Though materially greater emphasis is placed in common stock analysis on factors bearing on the future than in bond analysis, it is still true that the major practical task of the analyst is to obtain a sound and comprehensive view of the company's past operations and present condition and of industrial and other trends actually in evidence.

(1) NATURE OF THE ENTERPRISE

The analyst examining a common stock will check with particular care into the factors falling under this heading, for the full effect of improvement or decline in the status of the enterprise will be felt by the owners of the equity. With respect to the industry, he will consider the economic necessity for its products; the development of competitive industries; the relative stability of demand and prices; the problems posed by government regulation, local and federal taxation, labor costs, and raw material costs; and, in particular, evidences of expanding or declining trends in the volume of business or the margin of profit. As compared to bonds, he will naturally place much greater emphasis on indications of long-range growth or decline, since they affect the stockholder directly. At the same time, he will be impelled to give great weight to the factor of year-to-year stability, for the income of the stockholder is likely to fluctuate along with current earnings. For this reason, there is much to recommend the stocks of those consumers' goods industries which experience relatively small cyclical fluctuations in profits and dividends.

Recognition of the importance of the growth factor is, of course, inescapable, and it is only common sense that a growing business, once it has passed the pioneering stage and is not growing so rapidly as to strain its finances, should as a rule carry less risk than a stationary or declining business. The common stock investor should make a conscious effort to row with the tide rather than against it. If an industry or company is clearly declining and there is no promising remedy for its ills, the course of action is plain: its issues should be strictly avoided, despite possibly tempting prices. On the other hand, as we have indicated before, if a growth trend appears to be present, care should be taken to hold one's enthusiasm within bounds, because of both the substantial hazards involved in projecting growth and profit trends into the future and the tendency of stock prices in such instances to discount much of the potential growth.

Because of the full risks assumed by the common stock investor, it is essential that the company chosen, whether or not it is widely known, possess a soundly established position in its industry, such that its profits experience has been at least as favorable as that of the industry as a whole. A marginal company is especially undesirable, for though if of substantial size it usually manages to stay in business it is by nature unable to pay dividends consistently on its common stock.

The extent to which the company is entrenched in its industry may be tested in several ways. Comparative summaries showing the size, productive capacity, financial resources, margins of profit, sales, and earnings progress of all major units in the industry are helpful in indicating points of relative strength or weakness. Operating ratios of various sorts are usually prepared to measure the efficiency of plant and the caliber of the management. The reputation and past record of the management are of great importance as factors bearing on future progress and should receive careful attention. Excessive salaries and bonuses to managers should be regarded critically. The possession of a substantial stock interest in the business by the managers is normally regarded as a favorable factor, but consideration must be given to the possible effect on dividend policies.

Two additional criteria are size and seasoning. Extremely small companies should be avoided because of the large risks associated with them. What is dangerously small varies greatly between industries, of course, but as a general rule companies with a total market valuation of less than $5,000,000 would not be attractive for the average investor. Newly organized companies, likewise, should be avoided, for it is essential that the earning power of a company be tested by experience, not simply calculated on paper. The earnings record should cover a long enough period to demonstrate ability to weather adverse conditions.

On the other hand, the necessity for seasoning should not lead us to accept blindly the high reputation possessed by many companies boasting long and unbroken dividend records. Some such companies become so highly seasoned that investors fail for long periods to detect fundamental weaknesses which have developed behind their imposing façades.

(2) Capital Structure

Unlike bonds and preferred stocks, common stocks are essentially simple in form and share in all residual assets and earnings. Accordingly, they rarely require more than limited attention to the terms of the issue. Usually, brief attention to the description available in any statistical manual will suffice. If more than one class of common stock exists, the additional class, generally designated as Class A or Class B common, is most often either a nonvoting common stock or a special class of preferred stock.

The prospective common stock purchaser, of course, must not overlook the position and rights of senior capital, and he must be aware of any special provisions or restrictions which may affect the rights of the common shares. For example, the prospect of common dividends may be remote because of the existence of large arrears on preferred stock, need for funds with which to satisfy sinking fund requirements, or actual prohibition of dividends as a covenant of a bank loan or bond issue. Similarly, the stockholder's equity may be subject to dilution through conversion privileges possessed by holders of senior obligations, or through the exercise of warrants to buy common stock at low prices.

When senior capital is of any importance, it is desirable to prepare an exhibit showing the extent of the "pyramid" ahead of the common stock, both to indicate leverage that will magnify fluctuations in earnings and to afford a basis for judging the soundness of the capitalization. This pyramid is ordinarily best shown, from the standpoint of the common stockholder, on the basis of the priorities possessed by the senior obligations rather than their market prices. A supplementary means of judging this factor as well as the general credit of the company, however, is reference to market prices. A noncallable preferred stock with a high dividend rate may, for example, represent in effect an obligation considerably greater than its nominal priority. What is a safe percentage of senior capital depends chiefly on the nature of the industry. Many unstable and speculative industries should not possess funded debt. Among other criteria, debt is probably not justified if other companies in the industry are free from it, for it then becomes a burden competitively.

From the practical viewpoint of the investor, experience suggests the inadvisability of owning common stock in any business, no matter how stable, in which such stock constitutes less than one-third of the total capitalization on the basis of market values. A figure as low as one-third is acceptable in a stable industry only if progress is being made in reducing senior obligations, and a materially higher minimum should apply in any event in most industrial classifications. Whether senior obligations are being reduced or there is instead persistent resort to new financing of this type is, of course, a vital consideration.

With respect to the burden constituted by senior capital, a great deal will depend on its coupon or dividend rate. It is naturally to the stockholder's advantage if low rates are being paid on debt and preferred stock, or if there exists the privilege of redeeming such obligations at reasonable figures. Refunding operations often may benefit net earnings substantially. Other things being equal, it is of course more satisfactory from the standpoint of the common stockholder to have senior capital consisting of preferred stock, with its conditional charges, rather than debt.

Marketwise, the existence of a high degree of leverage on earnings through the medium of senior capital is a factor that often contributes to violent fluctuations in price, both because of the sharp changes which are bound to occur in earnings and because of the attraction of such issues to speculative interests.

(3) Financial Position and Asset Value

Assurance of financial strength is just as necessary to the common stockholder as it is to the bondholder. Adequate liquid resources not only permit a continuation of dividends during brief periods of insufficient earnings but also obviate any need for constantly employing earnings to build up working capital.

The net working capital per share of common stock (after deduction of senior obligations) is often calculated to indicate a liquid sum that belongs to the stockholder regardless of how undesirable the business may be. Offhand it would seem that a minimum value for a common stock could hardly be less than this. Because actual liquidation is rarely in prospect, however, such a conclusion may not always follow. Studies have shown large numbers of stocks selling for less than their share in net working capital for long periods of time, some of them frequently for half or less though there was little doubt that the working capital was sound and that additional value existed in plant. A strong working capital position is highly desirable, but it is no substitute for earning power and dividends.

Somewhat similar attention should be given to the net value of the plant in order to indicate roughly the size of the tangible assets held by the company. As we have repeated, fixed assets are worth only what they are able to earn over a period. On the other hand, the existence of substantial asset value may help to assure the analyst of the soundness of reported earnings. The need for a substantial outlay for plant, for one thing, may be a bar to the rapid multiplication of competitive businesses, and a moderate rate of return on plant investment may serve to discourage those potential competitors who would have been tempted by a high return. Moderate rates of return on invested capital may also serve to limit liabilities under excess profits taxation.

The existence of substantial asset value, in the form of either working capital or of plant, in addition may help to temper the fluctuations in price that would otherwise follow sharp changes in earnings. Such asset value lends additional assurance that after necessary adjustments have been accomplished earning power will be restored.

(4) Earnings and Their Valuation

Though earnings and dividends rank together as the key factors in the valuation of common stocks, it is earnings that occupy the primary attention of the analyst, since they are the source from which dividends flow. Dividend policies may reflect numerous additional factors, but earnings are fundamental. For convenience in analysis the two factors are usually separated.

It is through the essential unpredictability of earnings that most of the unstable characteristics of common stocks arise. In some instances this degree of unpredictability is so great as to bar the issue from consideration. In others, prediction may be undertaken with considerable confidence. Still, though we inevitably must place great emphasis on earnings, we can never rely entirely on a factor so susceptible to rapid change and to misleading presentation.

The primary test of earning power is actual experience, and experience over a representative series of years, not simply the most recent period. Beyond this factual foundation, essential but admittedly fallible as a guide to the future, the analyst should advance only with cautious and logical steps. It is necessary to remember in this respect, of course, that he is looking for investment opportunities as well as for weaknesses. He has the choice of three principal courses in appraising a company's future, but he cannot ignore the question, shrouded though it may be in conjecture.

Following one approach, he may look simply to the past and assume that past average earnings are a fair guide to the future. As a second possibility, he may assume that the trend in earnings in recent years is likely to continue into the future. Third, he may make an arbitrary estimate of future earnings on the basis of entirely new conditions, perhaps predicated on underlying trends in the industry or in the company's affairs which have not been fully visible in earnings.

In any case, the analyst will subsequently find it necessary to supplement his study with a periodic review of actual earnings as they materialize, and to adjust his ideas accordingly. Interim earnings, for example, fluctuate erratically and are untrustworthy by themselves, but when tied in with a longer-range record they may be helpful in indicating significant trends. A valuable current evidence of earning power in which seasonal fluctuations are smoothed is provided by calculations showing earnings per share for the twelve months ended on the latest interim report date.

Each of the three general courses outlined has its advantages and its faults, depending on the characteristics of the enterprise concerned and the nature of past earnings. It is essential that past earnings be analyzed before they are accepted as possessing any bearing on future results. That is, it must be determined whether they were the product of factors that one may reasonably expect to be enduring. The quantitative data must be supported by a qualitative survey.

In addition to their size, past earnings are, of course, analyzed from the standpoint of stability. An absence of deficits may be more desirable than a spotty upward trend. In either event, the underlying forces responsible for the characteristic pattern should be isolated, if possible, and analyzed.

Price-Earnings Ratios. The price-earnings ratio is a summation of all the various factors of value we have been discussing. It expresses the valuation placed on the company—its past record, present condition, and future prospects—in view of existing money rates and general sentiment, and the derivation of an appropriate ratio in any given instance is correspondingly complex, so that there is no basis for establishing arbitrary standards.

It is possible, however, to note the price-earnings valuations placed on representative stocks over a period of years and to arrive, for principal classes of stock, at more or less typical bases of valuation which will serve as useful guides in selection. One major use of such ratios is as standards of *relative* value by means of which the analyst is enabled to compare readily the relative cheapness of one common stock with another. The price-earnings ratio is in many respects a more satisfactory basis of comparison than is yield, for it is not influenced by temporary peculiarities in dividend policies.

Traditionally, the rule for determining the fair value of a common stock was that its price should be roughly 10 times average earning power, though this could be expected to vary somewhat with inherent quality or to reflect pronounced trends of growth or decline. Such a basis of valuation was typically applied to private businesses, and its transfer to corporations was natural, since the two fields of investment were competitive. A company whose stock was selling at 10 times earnings could pay dividends of 6 or 7 per cent on the market value and still retain a substantial surplus for expansion or other corporate purposes.

The favorable experience of investors with common stocks over a long period, the liquidity afforded by listed shares, and other factors gradually led to more liberal valuation, until in the boom of the 1920's truly fantastic ratios of prices to past and current earnings were freely justified on the basis of the rapid expansion in profits which was expected. As late as 1937, in fact, financial journals spoke seriously of the "characteristic price-earnings ratio" of the General Electric Company as being 40 times. Even in 1940, 20 times average earnings was a common ratio for blue-chip issues. During the war years, with greatly increased earnings, the valuation placed on them was generally lowered. Still further increases in earnings during the post-war boom led to a confused situation, wherein numerous sound issues were selling at only 3 or 4 times current earnings and less than 10 times average earnings, while other issues continued to command valuations in excess of 15 times average earnings. The low current price-earnings ratios of this period reflected fears of investors that the great prosperity might not continue, that losses might then develop rapidly because of high "break-even" points in industry generally, and that the greatly increased burdens of debt assumed by many leading companies might pose serious problems.

One means of clarifying the significance of price-earnings ratios is to regard them inversely as *earnings yields* by assuming simply that the company is carrying out the investor's wishes in reinvesting undistributed earnings for him. A ratio of 10 times earnings thus becomes a 10 per cent earnings yield, a ratio of 12 times becomes an 8.33 per cent earnings yield, and a ratio of 15 times a 6.67 per cent earnings yield. In this manner, the real implications of ratios of 20 times and 25 times become more obvious. A 20-times ratio becomes a 5 per cent earnings yield, and, if we cut this down realistically to allow for distribution of perhaps 70 per cent of earnings as dividends, the result is a meager 3.5 per cent return in exchange for assumption of the risks of ownership. The only justification for ratios above 20 times average earnings is the existence of unmistakable evidence that a substantial and enduring expansion in earning power is in prospect.

The practical course for the analyst is to determine a suitable basis of valuation of average earnings for the stock in question and to stick by it. The price-earnings ratios which have prevailed on the stock in the past are helpful indications. As a general guide, we shall suggest that a maximum ratio of 15 times average earnings is all that can be paid for even the soundest and most stable stock without the adoption of a speculative attitude. With money rates low and the popularity of common stocks as an investment medium well established, a basis below 10 times average earnings should apply in normal times only to relatively unstable issues. A fair normal price ratio for good-quality common stocks might be established in the zone of from 10 times to 12 times average earnings. On the other hand, under conditions presenting unusual hazards, as in wartime, such ratios might well prove unduly high.

The so-called growth stocks present a special problem, for they are highly prized by many and may sell well above any reasonable valuation of actual earnings because of the potentialities visualized for the future. Recognition of the advantages inhering in growth issues as such, however, does not justify the investor in undertaking the risks involved in their selection unless he is able to do so on the basis of value now clearly visible. Some premium for growth is proper, but it should be possible to justify the commitment primarily as a reasonable valuation of actual earnings already obtained.

Of just as much practical importance as the price-earnings ratio chosen is the earnings base to which it is applied. We have spoken continually in terms of average earnings as the only basis on which the analyst was justified in representing the past or forecasting the future. The stock market, however, is not always conservative about such matters and is prone to apply a given "quality multiplier" or price-earnings ratio to earnings of a single year, or even a single quarter, justifying the procedure with the attitude that, after all, the present is the only period we can be certain about, for past conditions have vanished and the future is unknown. Likewise, as the mood strikes it, the market may apply the same ratio indiscriminately to past earnings or to anticipated future earnings, or it may change the ratio to accord with fluctuations in sentiment.

For most investment purposes, the average of earnings per share for the latest five years is a satisfactory earnings base. The base period employed should be long enough to smooth out random or cyclical fluctuations and yet not so long as to give undue weight to conditions that will never recur. Sometimes, to emphasize the trend of earnings, a weighted average is used in which earnings of the most recent years are given extra importance. Another method, employed when a convincing trend exists or significant new influences on earnings are present is to average together recent actual earnings plus earnings estimated for the current and immediately succeeding years.

(5) Dividends and Their Valuation

All the emphasis justifiably placed on earnings does not alter the need of the investor for an income return from his investment, and the probable dividend yield is a major element in the final valuation of a common stock. The dividend return should in the long run amount to 60 per cent or more of the earnings reported, but this cannot safely be assumed without scrutiny of financial strength, possible need for new funds in expansion of the business, and, especially, dividend policies followed in the past.

A steady dividend yield over a period of years mounts more rapidly than the speculator dazzled by ephemeral appreciation opportunities in nondividend-paying stocks often realizes. An established and well-protected dividend rate is a highly real and tangible thing which serves materially to lessen fluctuations in the price of a stock.

The dividend yield obtainable on a stock is a less serviceable concept than the price-earnings ratio because of its distortion for comparative purposes through variation in the proportions of earnings that different companies pay out as dividends. Moreover, although the yield on a stock as commonly understood is the actual cash yield on the current dividend rate, the price of the stock inevitably contains some element of optimism or apprehension about anticipated changes in the rate in the future. One consequence of these influences is that current dividend yields obtainable on stocks of equal quality may cover a wide range, and stress on relative dividend yields is often extremely misleading. The appropriate dividend yield is not susceptible to expression in arbitrary standards but is an individual matter, subject only to the general qualification that the probable average yield should be definitely higher than that available on sound senior obligations.

Stress on high current yields in selecting common stocks is a particularly dangerous policy except under panic conditions. Normally, an unusually high yield is a warning indicating that reduction or possibly omission of the dividend is anticipated. It may also, as is common with gold-mining shares, reflect the gradual extinguishment of assets through depletion.

To make emphatic the limitations of current dividend yield as a measure of value, we may suggest the case of a sound company in an unstable industry which, let us say, has been forced to omit its dividend temporarily, though eventual recovery to substantial earnings and dividends is assured. Obviously, shares in such a company are likely to be available on the most attractive basis when it is paying no dividend at all.

Stock Dividends. At this point, some comment is pertinent on the valuation of stock dividends or other dividends paid in the form of securities. If the securities distributed are senior obligations of the subject company or securities of other corporations formerly held in the treasury, and if the payments are covered by current earnings and hence are not distributions of capital, such dividends are essentially the same as cash dividends and may be so valued, even though the stockholder is presented with funds in an invested form.

If a dividend is declared in the form of additional common shares, on the other hand, and is not paid from current earnings, it is simply so much paper, a book transfer from earned surplus to capital account by which the stockholder receives more shares as evidence of the same proportionate interest in the business. It is akin to the "splitting" of shares undertaken in order to widen their market by lowering the price per share. It may be sold for cash, but the stockholder then finds himself with a smaller share in the business.

Dividends in the form of common stock which are declared from current net income in order to provide the investor with a token reflecting some of the earnings being reinvested for him (rarely at his request) by the corporation are only book entries also, but they may properly be treated as current income by the investor since they represent title to actual current earnings. The principal criticism of such a dividend is the manner in which its actual value may be inflated in many cases by the habit of the stock market of considering a 10 per cent stock dividend as a 10 per cent dividend on market value, instead of the 10 per cent on par value or nominal book value which it really is. The net effect may be to increase the market price because of the handsome "yield," thereby increasing the value of the next stock dividend, and so on.

Another means by which corporations have sometimes been enabled to obtain additional capital from stockholders and at the same time cause them to believe they were receiving a special distribution is through the offering of "rights" to subscribe to new stock at prices well below the prices currently prevailing in the market. As a matter of fact, there is no difference between this operation and a stock dividend except that the investment required of the stockholder involves the provision of new capital instead of simply his share in earnings in order to maintain his proportionate interest in the company. Certainly, rights should not be considered as income.

(6) Market Tests and Comparison with Other Issues

The analyst as a routine matter checks the marketability of the stock in question and looks at the record of its past fluctuations in price for evidences of unusual stability or volatility. Except for speculators desiring liquidity and those large investors who are forced to deal in large blocks of shares, there rarely is occasion for major stress on marketability in the selection of common stocks. To the extent that need for abrupt liquidation is a likely contingency, of course, common stocks do not belong in an investment program.

On the other hand, it is essential that there be a sufficiently broad market to permit the investor to change his mind in the light of later developments and sell with reasonable promptness should he so desire. Moreover, a broad market reflecting the knowledge and opinions of numerous buyers and sellers may offer some extra assurance that the quoted price does not cloak serious undisclosed weaknesses. The fact that stock is listed on an exchange is by no means a certain indication that it possesses more satisfactory marketability than an over-the-counter issue, but this is generally so. It is true, also, that the readily available record of transactions on an exchange is of assistance to the stockholder in following the progress of his commitment once it is made and in noting indications of change which may require review of the situation.

The extent of fluctuations in price in the past is the only practical indication of the degree of price stability possessed by an issue. The analyst should note minimum prices reached as well as the frequency and violence of fluctuations. One significant factor contributing to instability is popularity of the issue among traders and speculators as a vehicle for their short-term commitments.

Often useful in portraying the price fluctuations characteristic of a given stock is a stock-price chart showing weekly or monthly price ranges and the volume of transactions. Such a price history is basically a record of experience with the stock in the past. Frequently the inclusion of reported earnings per share on the chart on an appropriate scale will provide an illuminating record of price-earnings relationships.

Use of such charts for investment purposes, however, must be carefully restricted to description of the past. The temptation to employ them speculatively to forecast future price movements according to any one of many theories of mechanical forecasting must be restrained, as likewise should emphasis on short-term "technical" factors. At the same time, complete innocence of the so-called technical aspects of security price movements and of widely followed forecasting theories is hardly desirable in the realistic analyst.[3]

In view of the inevitable roughness of common stock valuation, it is desirable as a final check to compare the issue at hand with issues of other companies engaged in the same line of business. Comparative summaries of essential statistics in tabular form will be found helpful in many instances. It is most essential, however, to avoid selecting one stock solely because it is more favorably priced relative to earnings and dividends than is another. Such a criterion is a tested means of inviting losses. Though a common stock to be attractive for investment should be priced favorably relative to other comparable issues, it must also be attractive on its own merits alone.

SUPPLEMENTARY READINGS

(For Chapters 29, 30, and 31)

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Williams, J. B., *The Theory of Investment Value,* Harvard University Press, Cambridge, 1938, Chapters III, V, XV, XXI to XXVII.

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[3] Capable discussions of technical aspects are contained in *Commonsense Speculation,* by "The Trader," Barron's, New York, 1938, in R. W. Schabacker, *Stock Market Theory and Practice,* Forbes, New York, 1930, pp. 558–692, and in Garfield A. Drew, *New Methods for Profit in the Stock Market,* Barron's, New York, 1948.

PROJECTS

1. Select the common stocks of two companies operating in the same industry and prepare a comparative analysis. Which seems to be the sounder investment, all factors being considered? For whom would you recommend its purchase?

2. Analyze the stock of a large commercial bank. For what types of investor would you recommend its purchase? Why? (See P. L. Garcia, *How to Analyze a Bank Statement,* Bankers Publishing Company, Cambridge, 1935, and Guthmann, Chapter XVI.)

3. Analyze the stock of a large fire insurance company. To what extent do you believe investors would be warranted in regarding it as an "investment company" into which they could place a material portion of their funds? (See Guthmann, Chapter XVII.)

CHAPTER 30 Selection of Common Stocks

(CONTINUED)

Problem Posed by Diverse Individual Characteristics of Common Stocks. Our discussion in the preceding chapter has outlined the broad principles that must guide analysis and selection of common stocks for investment. The unavoidable generality of the standards proposed, however, and the numerous qualifications and exceptions, though necessary to allow for the diverse individual characteristics of common stocks, may well be confusing when actual application is attempted. We shall endeavor in this and the following chapter to clarify the practical problem of application through presentation of selected examples.

Whereas an overwhelming proportion of bonds available for investment falls within the civil, railroad, and public utility classifications, no such concentration exists among common stocks. With the latter, many important industrial classifications exist, and virtually all the tremendously varied industries of the country are represented. It is in consequence difficult to select examples typical of more than minor fractions of the whole. We are likely to profit more from glancing in abbreviated fashion at several examples than from undertaking an elaborate survey of a lesser number.

Examples of Valuation: General Motors and General Electric. When a prosperous level of business has been succeeded by depression, and equities generally have suffered severe liquidation, the investor in common stocks may with reasonable prospect of success look around for instances of undervaluation among the stocks of large and strong enterprises whose shares are not normally obtainable on a favorable basis. Such an occasion was the first half of the year 1938, following the collapse in business and stock prices in 1937.

Among issues deserving investigation at that time were the common stocks of General Motors Corporation and General Electric Company, obtainable on June 1, 1938, at $27 and $31 per share, respectively, compared with peak prices in the previous year of $70 and $64. The two companies ranked among the nation's largest and strongest industrial enterprises, their importance to investors being indicated by the fact that as of the same date the market value of General Motors common and preferred stocks represented 4 per cent of the total market value of all stocks listed on the New York Stock Exchange, and that of General Electric common stock represented 2.6 per cent.

(1) NATURE OF THE ENTERPRISE

The Industries. It was common knowledge that General Motors was the dominant factor in the automobile industry and that General Electric held a similar position in the electrical equipment industry. Both these industries were subject to sharp cyclical fluctuations in sales and in earning power, but both were also of fundamental importance.

The automobile industry was dependent for prosperity on the purchasing power of the general public and its willingness to spend. Its sales habitually fluctuated with considerably more violence than consumers' incomes, for the reason that automobiles were expensive, a luxury item in most cases, and sufficiently durable that replacements could easily be deferred in unfavorable times. Over a period of years, a definite replacement demand could be expected as cars were scrapped, but this demand was likely to be concentrated in periods of general prosperity.

It was conservative to presume in 1938, as many did, on the basis of the restricted rate of growth of registrations in recent years and the large total of passenger cars and trucks then registered, that the industry had reached a stage of maturity and that future business would consist mainly of replacements. This, however, on the basis of an estimated useful life of nine years for each of nearly 30,000,000 automobiles, meant an average annual domestic replacement demand of 3,300,000. If to this figure one were to add only 400,000 units for Canadian and export markets, the total was approximately equivalent to the average production of the industry for the five years ended with 1937. There appeared to be no serious new competitive threats either from within or without the industry, and it was to be expected that profits would continue to depend on volume rather than prices. The table following brings out the degree of fluctuation in volume typical of the industry and shows the extent to which the competitive position of General Motors had been successfully maintained.

The electrical equipment industry manufactured an important volume of incandescent lamps, refrigerators, household appliances, and similar consumers' goods, but the major determinant in its profits was the sale of heavy capital equipment—motors, turbines, generators, transformers, COMPARISON OF GENERAL MOTORS UNIT SALES WITH TOTAL PRODUCTION OF CARS AND TRUCKS, 1928–1937

Year	Total Production of Cars and Trucks, United States and Canada (1928=100)	Total Production of Cars and Trucks, United States and Canada (thousands of units)	Factory Sales of General Motors Cars and Trucks from United States and Canadian Plants (thousands of units)	Per Cent General Motors Sales of Total Production
1928	100	4,601	1,811	39
1929	122	5,622	1,899	34
1930	76	3,510	1,158	33
1931	54	2,472	1,034	42
1932	31	1,431	526	37
1933	43	1,986	802	40
1934	62	2,870	1,128	39
1935	90	4,120	1,564	38
1936	100	4,616	1,867	40
1937	109	5,016	1,929	38

and similar products—for industry in general and the electric utility industry in particular. It thus shared fully in cyclical fluctuations in business. In recent years it had suffered through the failure of the utility industry to restore construction expenditures to the high level of the 1920's, but there seemed no reason for doubting the economic necessity of the business or, in fact, the probability of long-range expansion along with continued growth in the applications of electricity.

As in the automobile industry, no serious competitive threat was visible either within or without the industry, and profits were likely to depend on volume rather than prices. An approximate index of the extent of the industry's fluctuations and also the degree to which General Electric's position had been maintained is afforded by the following table comparing General Electric's new orders with figures reported by the Department of Commerce covering new orders received by 78 electrical manufacturers, including this company. It was estimated that the figures for 78 manufacturers represented more than half of the industry.

The Companies. The tables presented here reflect the dominant and well-maintained competitive positions of the subject companies. They were enormous in size, thoroughly seasoned, and in the hands of managements recognized as honest and extremely able. Liberal bonus plans were in operation for executives, but results seemed to have justified them. Likewise, on the basis of experience, there were no unfavorable implica-

NEW ORDERS OF GENERAL ELECTRIC AND 78 ELECTRICAL MANUFACTURERS, 1928–1937

Year	78 Companies		General Electric (millions of $)	Per Cent General Electric Orders of Total for 78 Companies
	(1928=100)	(millions of $)		
1928	100	826	349	42
1929	129	1,066	446	42
1930	99	814	342	42
1931	70	579	252	44
1932	34	283	122	43
1933	39	325	143	44
1934	53	439	184	42
1935	65	539	217	40
1936	92	763	297	39
1937	113	930	379	41

tions in the control over General Motors possessed by the du Pont company through its ownership of about 23 per cent of the common stock. The efficiency of managements and plants was attested to by consistently favorable operating ratios. General Electric, for example, was able to report a better margin of profit in 1937 than in 1929. A relatively high payroll cost, averaging about 42 per cent of sales during the latest five years, was typical of General Electric's operations, yet appeared to offer no problem, wage rates being governed by changes in cost-of-living indices. General Motors, whose payroll had averaged 29 per cent of sales for the same period, was still suffering from disturbed labor conditions as an aftermath of the big strike of 1937, but improvement was noted.

Because of the vast size and broad list of products of both of the companies, possible future growth was unlikely to be large percentagewise, but it was true that the potentialities for long-range growth in the electrical equipment industry seemed the greater of the two. On the other hand, both companies possessed large research organizations and ample financial resources, and they might be expected to bolster their position by expanding into promising new lines. General Motors, in particular, had been successful in recent years in diversifying its activities through the establishment of new manufacturing divisions, notably Diesel engine and airplane engine manufacture and electric refrigeration.

Both companies possessed large unconsolidated investments in subsidiary and affiliated companies from which substantial income was received. Justification for this lack of consolidation was afforded by differences in the businesses conducted, however, and although available information on the nature and condition of such investments was not entirely satisfactory it was sufficient for the purpose at hand. Both companies likewise possessed extensive properties and investments in foreign countries, but although they did a large business abroad the actual return obtained from these sources was not a vital factor in total earnings; that is, it was possible to determine whether the common stocks in question were undervalued without a thorough study of foreign operations.

(2) CAPITAL STRUCTURE

The capital structures of both companies were simple, and no unusual provisions existed with respect to their common stocks. Unconsolidated subsidiaries owed certain obligations (not guaranteed by the parent companies) that appeared to be well protected by the assets of the subsidiaries.

General Motors possessed a measure of leverage in the form of 1,835,644 shares of $5 cumulative preferred stock. Callable at 120, this stock possessed priority of $100 per share and sold on June 1, 1938, at 116. Valued at the latter figure, or at $213,000,000, it still represented only 15 per cent of total capitalization, for the 42,920,185 shares of common stock were valued by the market at more than $1,150,000,000. Other minor items were a $2,000,000 minority stock interest and $8,000,000 of "employees' savings funds." The wholly owned General Motors Acceptance Corporation, carried as an investment, had outstanding $125,000,000 of notes and debentures, in addition to large bank loans, which were believed to be amply covered by its portfolio of automobile instalment paper. The only new capital obtained by General Motors itself in the past decade had been through sale of $15,820,000 of preferred stock in 1930.

General Electric at the 1937 year-end had reported no securities directly outstanding other than 28,765,534 shares of common stock (excluding 80,393 shares in its treasury). Its Canadian subsidiary had a small amount of employees' preferred stock outstanding, and two wholly owned investment companies had outstanding roughly $80,000,000 of special debentures and notes held by employees or by pension trusts. Even were these to be considered obligations of the company, however, the debt ratio was insignificant in view of the $900,000,000 market value of the common shares. No new capital had been obtained in the past decade, while $42,930,000 par value of special (preferred) stock and $2,047,000 of debentures had been retired in 1935.

(3) FINANCIAL POSITION AND ASSET VALUE

The financial positions of the two companies were tremendously strong, but book values of fixed assets relative to market value and earnings were not large, attesting to the ability of the companies to earn a high rate of return on invested capital. The following condensed balance sheets compare essential financial and asset data for selected years. Trends in the financial condition of General Motors were strongly favorable. On the other hand, its book value fell considerably short of the market price of

GENERAL MOTORS CORPORATION

Condensed Balance Sheet

(in millions of dollars, as of December 31)

	1937	1936	1935	1932	1929
1. WORKING CAPITAL					
Cash or equivalent	150.9	195.7	199.4	172.8	127.4
Receivables	62.9	92.7	69.3	31.7	49.4
Inventories (cost or market)	279.1	225.6	196.3	75.5	188.5
TOTAL CURRENT ASSETS	492.9	514.0	465.0	280.0	365.3
TOTAL CURRENT LIABILITIES	145.7	174.3	145.0	57.8	117.7
NET WORKING CAPITAL	345.2	339.7	320.0	222.2	247.6
Current ratio	*3.4*	*2.9*	*3.2*	*4.8*	*3.1*
Quick ratio	*1.0*	*1.1*	*1.4*	*3.0*	*1.1*
% inventories to c. a.	*57*	*44*	*42*	*27*	*52*
% inventories to sales	*17*	*16*	*17*	*17*	*13*
2. OTHER ASSETS					
Property	747.8	690.2	592.2	500.0	609.9
Less: Depreciation	339.4	302.0	273.0	171.7	194.1
NET FIXED ASSETS	408.4	388.2	319.2	328.3	415.8
Investments	244.2	228.7	245.6	211.0	207.3
3. CAPITAL STRUCTURE					
Miscellaneous obligations	16.7	14.5	19.5	12.8	54.9
Minority interests	2.3	2.2	2.1	2.5	0.4
7% & 6% cum. Preferred*	..	..	..	..	137.0
$5 cum. Preferred*	183.6	183.6	183.6	183.7	..
TOTAL SENIOR OBLIGATIONS	202.6	200.3	205.2	199.0	192.3
COMMON STOCK (thousands of shares)	42,669	42,820	42,706	42,938	41,793
Net working capital per common share†	*$2.30*	*$2.45*	*$2.20*	*$0.30*	*$1.15*
Net fixed assets and investments per share	*$15.30*	*$14.60*	*$13.20*	*$12.50*	*$14.90*
Indicated book value	*$17.60*	*$17.05*	*$15.40*	*$12.80*	*$16.05*

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* Carried at $100 per share. Exchange in 1930 involved sale of only 15.8 millions to the public.

† After allowing for minority interests, preferred stock, and certain reserves.

27. The book value shown, however, was plainly conservative, and, as we have stressed, such a measure usually is of relatively minor interest.

Little fault could be found with the General Electric exhibit, other than to note less favorable trends than with General Motors, even allowing for

General Electric Company

Condensed Balance Sheet

(in millions of dollars, as of December 31)

	1937	1936	1935	1932	1929
1. WORKING CAPITAL					
Cash or equivalent	47.5	92.0	93.7	116.1	123.7
Receivables	31.9	29.8	23.9	17.8	54.6
Inventories (cost or market)	93.8	60.0	50.0	41.7	80.8
Less: net advance collections*	5.5	3.2	0.6	1.9	3.2
TOTAL CURRENT ASSETS	167.7	178.6	167.0	173.7	255.9
TOTAL CURRENT LIABILITIES	37.9	29.8	26.3	12.9	50.2
NET WORKING CAPITAL	129.8	148.8	140.7	160.8	205.7
Current ratio	*4.4*	*6.0*	*6.3*	*13.5*	*5.1*
Quick ratio	*1.3*	*3.1*	*3.6*	*9.0*	*2.5*
% inventories to c. a.	*56*	*34*	*30*	*24*	*32*
% inventories to sales	*27*	*22*	*24*	*28*	*19*
2. OTHER ASSETS					
Property	190.8	182.7	182.9	197.2	212.0
Less: Depreciation	150.7	150.5	147.1	152.2	160.3
NET FIXED ASSETS	40.1	32.2	35.8	45.0	51.7
Investments (less reserve)	154.1	140.6	148.6	155.0	183.8
3. CAPITAL STRUCTURE					
Funded debt	..	..	..	2.0	2.0
Miscellaneous obligations & reserves	17.5	16.0	12.5	9.3	7.9
6% cum. Special Stock	..	..	..	42.9	42.9
COMMON STOCK (thousands of shares)	28,766	28,750	28,846	28,846	7,211†
Net working capital per common share‡	*$3.90*	*$4.60*	*$4.45*	*$3.70*	*$5.35*
Net fixed assets and investments per share	*$6.80*	*$6.10*	*$6.40*	*$6.95*	*$8.15*
Indicated book value	*$10.70*	*$10.70*	*$10.85*	*$10.65*	*$13.50*

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* Excess of advance collections over installation work in progress.

† Stock split 4-for-1 in 1930.

‡ After allowance for certain reserves, and for debt and preferred stock in 1929 and 1932. 1929 figures adjusted to reflect subsequent 4-for-1 split in common.

employment of working capital to retire the special stock in 1935. Moreover, the relationship of book value to market value was undesirably low, despite virtual certainty that book values were excessively conservative. If the depreciation reserve carried against the property account had been proportionate to that carried by Westinghouse Electric, net fixed assets in 1937 would have been shown as 101.8 millions instead of 40.1.

(4) Earnings and Their Valuation

The reported earnings statements of the two companies, though known on the basis of balance sheet trends over a period of years to have been constructed conservatively, did not contain all the details desired. General Electric, for example, did not disclose federal taxes, and General Motors lumped income from investments with operating profits. It was possible to obtain these and other missing items from the data filed annually by the companies with the Securities and Exchange Commission, but only for 1934 and subsequent years. For the purpose at hand, the published reports as they stood provided a sufficient statistical foundation. These income accounts are summarized in the accompanying tables.

General Motors Corporation

Condensed Income Account

(in millions of dollars)

Years Ended Dec. 31	Net Sales	Depreciation	Net Profit from Operations and Investments	Per Cent Profits to Sales*	Income Taxes	Net Income	Dividends Declared on Preferred Stock
1928	1,459.8	30.5	332.5	*22.8*	33.3	276.4	9.4
1929	1,504.4	35.2	301.9	*20.0*	28.1	248.3	9.5
1930	983.4	37.7	176.9	*18.0*	16.1	140.7†	9.5
1931	808.8	38.0	142.8	*17.7*	14.3	117.5†	9.4
1932	432.3	37.2	9.4	2.2	0.3	0.2	9.2
1933	569.0	30.1	88.2	*15.5*	12.2	83.2	9.2
1934	862.7	32.6	106.0	*12.3*	15.4	94.8	9.2
1935	1,155.6	35.4	205.2	*17.8*	29.5	167.2	9.2
1936	1,439.3	38.8	289.8	*20.1*	43.6	238.5	9.2
1937	1,606.8	43.0	248.1	*15.5*	49.1	196.4	9.2

* Including income from investments. Reference to Securities and Exchange Commission data showed dividend and interest income received from investments of 14.6 millions in 1934, 32.0 in 1935, 31.6 in 1936, and 28.2 in 1937.

† Before extraordinary losses of 20.6 millions in 1931 and nonoperating profits of 10.4 millions in 1930.

NOTE: "Net income" includes the corporation's equity in undivided profits or losses of subsidiary companies not consolidated. Except in 1931, "net profit" as shown does not.

GENERAL MOTORS CORPORATION

Earnings and Price Record of Common Stock*

Years Ended Dec. 31	Earnings per Share	Dividends Declared	Price Range	Range of Price-Earnings Ratios
1928	$6.14	$3.80	90 –52	14.7– 8.5
1929	5 49	3 60	91¾–33½	16 7– 6.1
1930	3 04†	3 00	54¼–31½	17 8–10.4
1931	2.43†	3 00	48 –21⅜	19.8– 8.8
1932	*d0.21*	1.25	24⅝– 7⅝	.. ..
1933	1 73	1.25	35¾–10	20 6– 5.8
1934	2 00	1.50	42 –24⅝	21 0–12 3
1935	3 70	2.25	59⅜–26⅝	16 0– 7 2
1936	5.35	4.50	77 –53⅞	14 4–10.1
1937	4 39	3.75	70½–28⅝	16.0– 6 5
1938 (to June 1)‡		0 50	38¼–25½	
10-year average, 1928–1937	$3.40	$2 79		
5-year average, 1933–1937	$3.43	$2.65		

* Adjusted for 2½-for-1 stock split in 1929.

† Before $0 42 net extraordinary charge in 1931 and $0.21 net nonoperating profit in 1930

‡ $0 14 reported for the first quarter.

The earnings exhibit of General Motors was undeniably impressive in view of the market price of the stock. At 27, the price amounted to only 7.9 times five-year average earnings. Moreover, these earnings were backed up by a similar average for the past ten years. Obviously subject to sharp fluctuations, they nevertheless had held up remarkably well relative to earnings of other enterprises during the extreme depression in 1931–1933, and they had subsequently recovered in convincing fashion. The company had demonstrated an ability to contract operations tremendously and still avoid operating deficits, and its directors had evidenced a desire to maintain regular dividend payments, even though at reduced rates.

On the basis of past experience, giving note to the price-earnings ratios shown for General Motors as well as those normally prevailing on other stocks, a ratio of 7.9 times *average* earnings for so strongly situated a company represented a clear bargain. Reasonable value was certainly offered when the stock was available at 10 times average earnings, and probably at as high as 12 times, were the analyst forced to decide that point.

On the other hand, the argument offered against the purchase of General Motors at even 7.9 times earnings was that past earnings were not pertinent, that the future would be different. In our discussion of the industry, however, we concluded that an average volume of sales equivalent to the 1933–1937 average, the same base we have used for earnings, was an entirely reasonable expectation. In response to this, it was said by many that increased wage costs, which had helped to reduce the profit margin sharply in 1937, would act in the future as a bar to attainment of comparable profits on the same volume of sales. The poor showing of the first quarter of 1938, when earnings amounted to only $0.14 per share, compared with $0.99 in 1937, was cited in support of this point. Analysis of the quarterly report, however, more justifiably led to the conviction that showing any sort of a profit in the face of a 26 per cent shrinkage in volume compared with 1937 was a commendable performance under the circumstances, and that the company was likely to be able in the future, as in the past, to adjust its operations to show a favorable margin of profit. The analyst glancing at the past earnings and price record could hardly help but be impressed by the folly of basing his valuation on the results of any single year.

General Electric Company

Condensed Income Account

(in millions of dollars)

Years Ended Dec. 31	Net Sales	Depreciation	Net Income from Sales	Per Cent Profit Margin	Other Income			Net Income
					From affiliated companies and investments	From marketable securities and bank balances	From royalties and miscellaneous	
1928	337.2	n.a.	39.7	*11.8*	8.1	6.6	3.0	54.2
1929	415.3	n.a.	49.4	*12.2*	9.7	7.1	4.7	67.3
1930	376.2	n.a.	40.5	*10.8*	13.5	5.0	1.6	57.5
1931	263.3	8.9	28.4	*10.8*	8.7	3.8	0.5	41.0
1932	147.2	6.6	3.6	*2.5*	7.4	3.3	0.5	14.4
1933	136.6	6.2	6.9	*5.0*	4.4	2.0	0.6	13.4
1934	164.8	7.3	11.7	*7.1*	5.6	2.1	0.7	19.7
1935	208.7	9.3	18.4	*8.8*	7.5	1.5	0.7	27.8
1936	268.5	11.8	28.9	*10.8*	13.4	1.1	0.8	43.9
1937	349.7	12.1	47.9	*13.7*	14.2	1.2	0.6	63.5

NOTE: Reference to Securities and Exchange Commission data showed income tax payments of nothing in 1934, 4.6 millions in 1935, 7.6 in 1936, and 11.3 in 1937.

n.a. Not available.

GENERAL ELECTRIC COMPANY

Earnings and Price Record of Common Stock[*]

Years Ended Dec. 31	Earnings per Share	Dividends Declared	Price Range	Range of Price-Earnings Ratios
1928	$1.79	$1.50	55⅜–31	30.9–17.3
1929	2 24	1.37½	100¾–42	44 9–18.7
1930	1 90	1.60	95⅜–41½	50 1–21.8
1931	1 33	1.60	54¾–22⅞	41.2–17.2
1932	0 41	0 55[†]	26⅛– 8½	63 7–20.7
1933	0.38	0 40	30¼-10½	79 6–27.6
1934	0.59	0.60	25¼–16⅞	42 8–28.6
1935	0 97	0 70	40⅞–20½	42 2-21.1
1936	1 53	1 50	55 –34½	36 0–22.6
1937	2.21	2 20	64⅞–34	29.4–15.4
1938 (to June 1)[‡]		0.50	45½–27¼	
10-year average, 1928–1937	$1.34	$1.20		
5-year average, 1933–1937	$1.14	$1.08		

[*] Adjusted for 4-for-1 stock split in 1930.

[†] Plus one-sixth share of Radio Corporation common stock, amounting at market value on the day distributed to $0.67.

[‡] $0 25 reported for the first quarter.

On inspection of the General Electric earnings exhibit, the analyst was inevitably struck with the high price-earnings ratios which had prevailed in the past. Even in time of depression, the stock at a market price of 31 was selling at 27.2 times five-year average earnings and 23.1 times the ten-year average. What is more, it was selling at 13.8 times the highest earnings shown, despite lack of any clear-cut evidence of long-range growth in the earnings reported, which had failed in 1937 to exceed the predepression peak. The fact that first-quarter earnings had fallen only to $0.25 as compared with $0.40 in 1937 could not be taken as an indication of a lasting resistance to depression. It may have reflected mainly the length of time required to complete delivery on contracts for the heavier types of electrical equipment.

No matter how favorably disposed the analyst was toward the General Electric Company because of its financial strength, dominant trade position, and possible expansion, he could not on the basis of the standards we have outlined consider it reasonably valued at above 20 times average earnings, though he might employ ten-year instead of five-year average earnings, thus establishing 27, rather than 23, as a reasonable price. It is said of some companies that because of "romance" or prestige they "always sell too high," and it was entirely possible that speculative purchase of General Electric at 31 would prove profitable, judging from past price ranges, but purchase at such a price was not justifiable on an investment basis.

(5) Dividends and Their Valuation

Pertinent figures on dividends were included in the tables we have presented. Over a ten-year period, General Motors had distributed 82 per cent of available earnings as dividends, and General Electric had distributed 90 per cent. On the basis of established policies, dividend payments in both cases could be expected fully to reflect earnings, although payments would be irregular in size on this account. Reasonably full distributions could be expected regardless of continuance of the tax on undistributed profits.

On the basis of five-year average dividend payments, the possible annual yield on General Motors was indicated at 9.8 per cent, while the yield on General Electric was indicated at 3.5 per cent. The stocks had fluctuated over roughly comparable price ranges for many years, but because of this income the General Motors shareholder had been vastly better off than the holder of General Electric. It was reasonable to expect average dividends in the future not greatly different from those in the past. On this basis General Motors appeared clearly attractive in price, whereas General Electric was obviously no bargain. As for minimum dividend probabilities, the lowest annual dividend on General Motors in the preceding decade would have returned 4.6 per cent on a price of 27, and continuation of the current $1 rate meant a return of 3.7 per cent. General Electric's minimum dividend would have returned 1.3 per cent on a price of 31, and the $0.80 rate established in May, 1938, if continued, meant a return of 2.6 per cent.

(6) Market Tests and Comparison with Other Issues

Both stocks were active and highly marketable. The breadth of public interest in them was evidenced by data for the end of 1937 showing that General Motors possessed 375,755 stockholders, and General Electric, 201,219. As indicated by the price ranges already presented, however, their prices had been most unstable. At the time, they were selling below the average prices of recent years.

Elaborate comparative tests were not needed in this instance because of the prominence of the companies. The only really comparable situations were Chrysler Corporation and Westinghouse Electric. Chrysler, which sold at 38½ on June 1, was available at 5.0 times five-year average earnings, with an average dividend yield of 13.6 per cent. It also appeared attractive, but it was a smaller, less-diversified company and, though it had grown rapidly in recent years, was not entitled to sell on an equal basis with General Motors. Westinghouse Electric, on the basis of average earnings and dividends, was selling at fully as high a price as General Electric.

SUMMARY OF SIGNIFICANT POINTS

GENERAL MOTORS

Points of Strength

Sound though mature industry
Extremely strong and well-situated company
Sound capital structure
Low ratio of price to average earnings
High yield on average dividends

Points of Weakness

Industry characteristically unstable
Book value well below market value
Earning power perhaps impaired by labor conditions

GENERAL ELECTRIC

Points of Strength

Industry fundamental and with growth prospects
Extremely strong and well-situated company
One-class capital structure

Points of Weakness

Industry unstable
Book value far below market value
High ratio of price to average earnings
Low yield on average dividends

In short, General Motors was undervalued at 27 and was attractive for purchase at or near that price. It was believed to possess a sound value of probably 40, or roughly 12 times average earnings, with an indicated average yield of 6.6 per cent. General Electric, on the basis of the facts developed, was not attractively priced, seeming to command an undue premium over reasonable valuation of past and prospective earning power and dividends.

Examples of Valuation: Phillips Petroleum Company and Socony-Vacuum Oil Company, Inc. The selection of bargains in common stocks in times of depression is not a particularly difficult task. Under more prosperous conditions, however, the problem of the analyst is greater. If the industry concerned is not only prosperous but also highly popular with investors because of its growth characteristics or other desirable qualities, satisfactory valuation of a common stock may be very difficult indeed. It is partly for this reason that we have cautioned against the assumption of equity risks except under conditions of at least mild depression in business activity and stock prices, and when in addition prospects for improvement appear to be good. Unfortunately, this combination of circumstances may be slow to develop. The investor able to assume equity risks and wishing to obtain therefrom an improved income may be unwilling to wait indefinitely for a clear-cut purchasing opportunity to make bargains available to him. Allowing for the extra hazards involved, he may attempt to locate soundly valued securities available under conditions as they actually exist.

An illustration of the problems of common stock selection in times of prosperity will be provided by analysis of the stocks of Phillips Petroleum Company and Socony-Vacuum Oil Company, Inc., at the prices of 58 and 17, respectively, which prevailed on December 15, 1948. Not only was 1948 a highly prosperous period for business generally, extending the great post-war inflationary boom through a third year, but the outstanding gains in earnings for the year were also those being reported by the oil industry. After sensational increases in earnings which had established a new record for the industry as a whole in 1947, it seemed probable from interim reports that total 1948 earnings would be up at least 50 per cent more. The saving feature which, despite this great prosperity, warranted some consideration of oil stocks by investors was the general caution that prevailed throughout the equity markets and had brought prices well below earlier peaks, with low current price-earnings ratios and relatively favorable dividend yields. Oil stocks were also receiving attention from some investors for their possible usefulness as hedges against further depreciation of the dollar through commodity price inflation.

(1) NATURE OF THE ENTERPRISE

The Industry. The oil industry occupied a thoroughly basic position in our economy. Moreover, it enjoyed one of the strongest and most consistent growth trends of any major industry. Its principal product, gasoline, was indispensable to individuals and to industries alike, and the steady increase in its consumption since the automobile first came into general use had been interrupted only in 1932 and the war years 1942 and 1943. Total domestic consumption of 795 million barrels of gasoline in 1947 compared with 519 million in 1937 and 300 million in 1927. Other major products likewise had favorable trends in demand, including fuel oils, lubricants, natural gas, and a wide variety of petroleum and other chemicals. Not only were automobile, truck, steamship, and air transportation dependent on oil products, but dependence of the railroad industry, agriculture, and home heating was also increasing rapidly. Important synthetic organic chemical industries with large growth prospects were also based on oil and natural gas. No serious competition from other industries was in sight. If, as seemed probable, domestic crude oil reserves dwindled eventually to the point where resort to extraction of oil from coal, oil shale, or other materials was necessary, it was to be expected that this activity would be largely in the hands of the major oil companies.

The earnings experience of the oil industry prior to World War II had been somewhat erratic despite the favorable trends in volume. This had been due mainly to wide fluctuations in crude oil prices associated with surplus production which existed in the 1930's. The price of 36° Mid-Continent crude had fallen from a high of $2.13 per barrel in 1926 to $1.20 in 1929 and then to $0.28 in 1931 as flush production was brought in in east Texas. Rising to $1.04 in 1932, this price fell again to $0.30 in 1933. Subsequently, it had moved between $1.00 and $1.22 until 1946, when it began to rise sharply. It reached $2.57 per barrel in 1947, and this level had prevailed throughout 1948. The stability in prices finally achieved in the late 1930's had been accomplished only through strict regulation of allowable production under conservation laws in important producing states. This "proration" was still in effect. The sharp price increase beginning in 1946 reflected removal of O.P.A. ceilings, heavily increased demands, some shrinkage in proved crude reserves relative to annual requirements, and the greatly increased cost of discovery of new supplies as a consequence of higher exploration and drilling expenses and deeper wells. The tight domestic reserve position, with an indicated proved supply of only 10 years' requirements at the end of 1947, had added impetus to the development of crude reserves in foreign countries, especially in the Middle East. Increasing political risks therefore were faced by most of the major units of the industry.

The Companies. The industry was dominated by a group of approximately twenty large integrated companies, which operated in all four of its major divisions, namely, crude oil production, transportation, refining, and marketing. Phillips Petroleum Company was one of the better-balanced, low-cost operators in this group. Although considerably smaller than the biggest units, it was probably more broadly diversified than any other. In addition to its fully integrated oil business, it was the largest factor in the natural gas industry with larger reserves than any other company, the largest producer of natural gasoline, and a major factor in the liquefied petroleum gas industry and in the production of carbon black. It also operated a large butadiene plant for the government's synthetic rubber program and had developed promising new types of synthetic rubber. Recently, it had organized a subsidiary, Phillips Chemical Company, to produce anhydrous ammonia at the Cactus Ordnance Works which it had leased from the government, and was constructing additional commercial fertilizer production facilities. Phillips' crude reserve position was particularly satisfactory, being estimated at 1.2 billion barrels, and on balance it had been a seller of crude oil in most years, though additional refining facilities purchased and constructed in 1947 and 1948 may have caused refinery runs in 1948 to exceed crude output by as much as 20 per cent. Net crude oil production of 34.7 million barrels in 1947 compared with 23.9 in 1940. Refinery runs of crude of 33.5 million barrels in 1947 compared with 19.3 in 1940. The company's marketing area was primarily in the middle western, southwestern, and Rocky Mountain states. Producing properties were mainly in the same areas, particularly Oklahoma, Texas, Kansas, and Arkansas. In 1944, the first steps had been taken to acquire foreign crude reserves. Active exploration had developed a small production in Venezuela, and a 27 per cent interest had been purchased in a promising concession being developed in the Middle East. In general, the long-term record of Phillips had been one of rapid and well-balanced expansion, with outstanding success in developing crude oil and natural gas reserves and in diversifying through development of by-products, especially those obtained from natural gas. The management continued to be dominated by the men who had built up the company and was in consequence highly regarded.

Socony-Vacuum Oil Company, Inc., was the second largest American oil company, accounting in recent years for about 4 per cent of the nation's crude oil production and 9 per cent of its refining and distribution. Its domestic marketing activities were nation-wide, though particularly important in New York and New England. Producing properties were owned in most of the important fields. Operations prior to the war had suffered from the company's position as a heavy purchaser of crude oil, which made it more vulnerable than most other large companies to unfavorable margins between the prices of crude oil and of refined products. Despite what was reported to be a strong effort to build up crude output, Socony's domestic crude production remained only about 40 per cent of refinery runs. Domestic crude reserves were estimated at 1.4 billion barrels. Domestic natural gas reserves were large, but smaller than those of Phillips. Net domestic crude production was not reported for 1947, but gross production was up only slightly from 1946, when net production had been 60.7 million barrels, compared with 55.4 million in 1940. Refinery runs of crude were 167.9 million barrels in 1947, compared with 111.5 million in 1940. Socony's foreign interests had been very large before World War II, particularly in the Far East, where they were in the hands of Standard-Vacuum Oil Company, jointly owned with Standard Oil Company (New Jersey). War damage, nationalization, and uncertain political conditions had seriously affected both current profits and future prospects of these operations. On the other hand, the company owned interests in important foreign production being developed in Iraq, Sumatra, Colombia, Venezuela, and Saudi Arabia. Taken together, however, the trends in Socony's operations over a period of years had clearly been less satisfactory than those of Phillips. Socony was in an unbalanced position from the standpoint of domestic crude oil requirements, and it did not possess the diversification of earning power that Phillips had developed from its natural gas and chemical activities.

(2) CAPITAL STRUCTURE

The exhibits which follow show the capital structures of both enterprises to have been in satisfactory proportions, the Socony capitalization being the more conservative in terms of book value, and the Phillips capitalization more conservative in terms of market appraisal. The Phillips structure reflected the improvement made in November 1947 by the sale to stockholders and underwriters of $48,000,000 of additional common stock, the proceeds being used to retire serial bank debt. However, when allowance was made for new term loans reported to have been obtained from banks during 1948, the ratios of debt were substantially less favorable. Of a total new bank term credit arrangement of $75,000,000, Phillips was using $20,000,000 in October 1948 and reported that it planned to use $15,000,000 more by the year-end. Socony in its annual report for 1947 stated that the $20,000,000 of bank credit in use on December 31, 1947, would be increased to $75,000,000 during 1948 and placed on a serial basis, with maturities running to 1958. If total debts in December 1948 were of the size thus indicated, the ratio of debt to total book valuation was in each case between 16 and 17 per cent. On the basis of market valuation, the Phillips debt ratio would have been 17 per cent and the Socony debt ratio 27 per cent.

PHILLIPS PETROLEUM COMPANY

	Book Valuation (December 31, 1947)		Market Valuation (December 15, 1948)	
	Amount	Per Cent of Total	Amount	Per Cent of Total
Serial bank notes	$ 3,750,000	1.0	$ 3,750,000	1.0
2¾% Debentures, due 1964	38,000,000	10.2	38,000,000	9.7
Purchase obligations, etc.	135,000	. . .	135,000	.....
Minority interest....	5,000	.. ..	5,000	.
TOTAL SENIOR OBLIGATIONS.......	$ 41,890,000	11.2	$ 41,890,000	10.7
Common Stock (market, 58)	332,750,000	88.8	350,610,000	89.3
TOTAL INVESTED CAPITAL.........	$374,640,000	100.0	$392,500,000	100.0

SOCONY-VACUUM OIL COMPANY, INC.

	Book Valuation (December 31, 1947)		Market Valuation * (December 15, 1948)	
	Amount	Per Cent of Total	Amount	Per Cent of Total
Serial bank notes..............	$ 20,000,000	1.9	$ 20,000,000	2.9
2½% Debentures, due 1976 . ..	100,000,000	9.4	100,000,000	14.8
Due to Standard-Vacuum Oil...	20,000,000	1.9	20,000,000	2.9
Minority interest.... . . .	964,000	0.1	964,000	0.1
TOTAL SENIOR OBLIGATIONS ...	$ 140,964,000	13.3	$140,964,000	20.7
Common Stock (market, 17) ..	921,556,000	86.7	540,617,000	79.3
TOTAL INVESTED CAPITAL... ...	$1,062,520,000	100.0	$681,581,000	100.0

* Giving effect to additional common stock outstanding as a result of the 2 per cent stock dividend paid December 10, 1948.

(3) FINANCIAL POSITION AND ASSET VALUE

The financial position of Socony-Vacuum was extremely strong, and that of Phillips less strong but adequate. Phillips showed a more favorable trend in working capital, but this reflected mainly its sale of additional common stock in 1947. Its rapid growth in volume and expansion in property investment had placed considerable strain on its finances. Over the five-year period covered by the balance sheet exhibits which follow, Securities and Exchange Commission data indicated that Phillips had made additions to property account averaging more than $61,000,000 annually. Socony's new investment was larger, averaging $88,000,000, but this was less important relatively to its much greater resources. The

Phillips net property account at the end of 1947 was indicated to be 56 per cent in oil- and gas-producing properties and reserves. Socony's comparable investment in production was about 40 per cent. The Socony annual report stated that net foreign assets included in its consolidated balance sheet totaled $202,000,000, or about $6.50 per common share. One-third of this total was in the Western Hemisphere. Study of the methods followed in stating foreign assets indicated that these assets were very conservatively valued.

PHILLIPS PETROLEUM COMPANY

Condensed Balance Sheet

(in millions of dollars, as of December 31)

	1947	1946	1945	1944	1943
1. WORKING CAPITAL					
Current assets	116.2	77.5	72.6	66.3	60.1
Current liabilities	52.0	33.0	29.3	35 6	35.6
NET WORKING CAPITAL	64.2	44.5	43.3	30 7	24.5
Current ratio	2.2	2.3	2.5	*1.9*	*1.7*
2. OTHER ASSETS					
Property	592.3	515.8	492.9	474.4	426.7
Less: Depreciation, depletion, etc.	301.9	280.5	271.6	239.9	222.3
NET FIXED ASSETS	290.4	235.3	221.3	234.5	204.4
Investments and advances	26.1	14.5	18.6	13.2	13.1
3. CAPITAL STRUCTURE					
Serial notes, due 1951	3.8	5.2	6.8	8.3	9.7
Purchase obligations, etc.	0.1	0.1	0.2	1.1	4.4
2¾% Debentures, due 1964	38.0	38.5	39.0	39.5	......
Notes payable, banks	......	......	......	......	14.6
TOTAL SENIOR OBLIGATIONS	41.9	43.8	46.0	48.8	28.7
Insurance and contingent reserves	11.9	6.8	6.1	11.5	5.2
COMMON STOCK (thousands of shares)	6,045	4,917	4,917	4,917	4,917
Net working capital per common share	*$ 3.69*	*$ 0.14*	*none*	*none*	*none*
Net fixed assets and investments per share	*$52 16*	*$50.86*	*$48.75*	*$50.16*	*$44.30*
Indicated book value	*$55.85*	*$51.00*	*$48.20*	*$46.50*	*$43.45*

Socony-Vacuum Oil Company, Inc.
Condensed Balance Sheet
(in millions of dollars, as of December 31)

	1947	1946	1945	1944	1943
1. WORKING CAPITAL					
Current assets	419.9	380.8	369.9	396.7	390.6
Current liabilities	154.3	114.7	95.7	116.2	119.3
NET WORKING CAPITAL	265.6	266.1	274.2	280.5	271.3
Current ratio	2.7	3.3	3.9	3.4	3.3
2. OTHER ASSETS					
Property	1,315.1	1,219.8	1,104.6	1,058.1	1,016.1
Less: Depreciation, depletion, etc.	677.4	642.2	594.7	546.7	516.6
NET FIXED ASSETS	637.7	577.6	509.9	511.4	499.5
Standard-Vacuum Oil Co. (cost)	87.4	87.4	87.4	87.4	87.4
Other investments and advances (less reserves)	109.9	78.8	94.4	79.5	69.6
3. CAPITAL STRUCTURE					
Serial bank debt	20.0	....	50 0	....	.....
Purchase obligations, etc.	....	....	0.3	3.6	7.7
2½% Debentures, due 1976	100.0	100.0	.....	......	.....
3% Debentures, due 1964	....	....	50.0	50 0	50 0
2⅞% Debentures, due 1955	....	......	......	64.5	69.0
Due to Standard-Vacuum Oil	20.0	25 0	25.0	25.0	25.0
Minority interest	1.0	1.1	1.2	1.3	2.5
TOTAL SENIOR OBLIGATIONS	141.0	126.1	126.5	144.4	154.2
Insurance and contingent reserves	43.8	41.6	51.4	119.7*	118.1*
COMMON STOCK (thousands of shares)	31,178	31,178	31,178	31,178	31,178
Net working capital per common share †	*$ 4.64*	*$ 5.30*	*$ 5.55*	*$ 5.17*	*$ 4.56*
Net fixed assets and investments per share	*$25.26*	*$22.25*	*$20.00*	*$20.23*	*$19.59*
Indicated book value	*$29.90*	*$27.55*	*$25.55*	*$25.40*	*$24.15*

* Including 69.6 reserve for contingencies subsequently restored to earned surplus.

† Amounts due Standard-Vacuum Oil Co. offset against investment therein

NOTE. In 1946 and 1947 all subsidiaries whose assets were located in the Western Hemisphere were included in the consolidated financial statements, in the war years only assets located in the United States were consolidated.

In terms of book value, Socony common stock made a strikingly favorable comparison with Phillips. The latter, at 58, was selling for slightly more than its December 31, 1947, book value, while Socony, at 17, was priced at only 57 per cent of book value. Investors obviously felt that the earning power of the Phillips assets was much greater relatively to their cost, or that assets not stated were of great importance. It is probable that both aspects deserved consideration. Earnings comparisons will be made later. The extent and quality of oil and gas reserves was the most important factor in asset values, yet they could not be adequately shown on the balance sheet. Phillips' domestic crude oil reserves were estimated at roughly 200 barrels per share, compared with less than 50 barrels per share owned by Socony. This 4 to 1 ratio was more in line with the prevailing ratio of market prices for the stocks of 3½ to 1 than with the book value ratio of 2 to 1. Phillips' estimated reserves of natural gas were 10 times greater per share than those of Socony.

(4) Earnings and Their Valuation

The earnings exhibits which follow cover a period of twelve years in order to include experience in 1936–1938, when prosperous business con-

PHILLIPS PETROLEUM COMPANY

Condensed Income Account

(in millions of dollars)

Years Ended Dec. 31	Gross Operating Income	Operating Income before Depreciation	Per Cent of Gross Operating Income	Depreciation, Depletion, etc.	Other Income	Fixed Charges *	Income Taxes †	Net Income
1936	105.1	35.6	*33.8*	15.9	1.2	0.6	2.4	17.9
1937	118.7	42.7	*35.5*	17.4	2.0	0.6	2.6	24.1
1938	111.9	31.8	*28.4*	20.1	0.5	1.2	0.7	9.0
1939	112.9	30.5	*27.0*	18.5	0.6	1.3	1.5	9.8
1940	115.3	34.2	*29.6*	20.2	1.9	1.0	3.3	11.6
1941	142.4	44.4	*31.2*	20.3	0.3	0.9	6.1	17.4
1942	144.1	44.8	*31.1*	23.5	0.3	0.8	7.7	13.1
1943	157.6	53.0	*33.6*	26.1	0.7	1.6	11.5	14.2
1944	202.9	62.2	*30.6*	32.8	0.8	1.4	3.7	20.9
1945	212.5	67.4	*31.7*	47.4 ‡	15.4 §	1.5	5.1	22.6
1946	220.1	60.7	*27.6*	30.9	1.8	1.3	6.3	22.6
1947	298.3	93.3	*31.2*	34.6	4.5	1.6	15.1	40.9

* Ratio of coverage very high, not calculated.

† Includes excess profits taxes, net of post-war credits, of 0.3 in 1941, 3.6 in 1942, 7.9 in 1943.

‡ Includes 6.5 special charge-off of all lease rentals capitalized in prior years.

§ Includes 8.6 profit from sale of capital assets and 5.4 profit on securities.

PHILLIPS PETROLEUM COMPANY

Earnings and Price Record of Common Stock

Years Ended Dec. 31	Earnings per Share	Dividends Declared	Price Range	Range of Price-Earnings Ratios
1936	$ 4.02	$2.50	52⅜–38⅛	13.0– 9.5
1937	5.42	2.75	64 –30⅛	11.8– 5.5
1938	2.03	2.00	44⅜–27¼	21.8–13.4
1939	2.21	2.00	46½–31¼	21.0–14.1
1940	2.61	2.00	41¾–27⅛	16.0–10.4
1941	3.92	2.25	46¼–35¾	11.8– 9.1
1942	2.92	2.00	46 –30	15.8–10.3
1943	2.88	2.00	50⅛–42⅜	17.4–14.7
1944	4.26	2.00	48⅝–42½	11.4–10.0
1945	4.59	2.00	59⅜–44½	12.9– 9.7
1946	4.60	2.00	73¼–49	15.9–10.6
1947	6.76	2.50	63¾–50½	9.4– 7.5
1948 (estimated)	12.00	3.00	77½–54⅝	6.4– 4.5
12-year average, 1936–1947 *	3.85	2.17		
6-year average, 1942–1947 *	4.33	2.08		

* No adjustment has been made to allow for the greater number of shares outstanding after December, 1947. These shares were sold for cash at a price close to book value

ditions were followed by the most recent general depression. The excellent earnings performances of both companies since 1940 had to be discounted to some extent because of the very favorable circumstances provided by heavy wartime demand and the extended post-war business boom. The analyst had to bear in mind also the very different picture which had existed in the industry in the early 1930's when the problem of surplus production was acute. Both Phillips and Socony reported deficits in 1931 and negligible earnings in 1932. Phillips common stock sold as low as 2 in 1932, while Socony touched 5¼. There seemed to be no basis, however, for serious concern over a possible return to 1931–1932 conditions in the oil industry. Proration had proved an effective instrument for avoiding oversupply of crude, and basic improvement in supply-demand relationships together with the greatly increased cost of developing new crude output was likely to continue to operate to support the price structure. In addition, Phillips, at least, had accomplished a great deal since 1932 in broadening and diversifying its business, so that it was no longer as dependent on the level of oil prices for its prosperity.

Socony-Vacuum Oil Company, Inc.

Condensed Income Account

(in millions of dollars)

Years Ended Dec. 31	Net Sales	Operating Income before Depreciation	Per Cent of Sales	Depreciation, Depletion, etc.	Other Income	Fixed Charges *	Income Taxes †	Net Income ‡
1936	518.6	85.9	*16.6*	37.1	11.3	3.9	9.2	42.9
1937	574.0	104.2	*18.1*	40.1	12.0	4.9	11.6	56.8
1938	544.2	81.5	*15.0*	43.4	17.5	5.4	7.5	40.1
1939	495.7	84.1	*17.0*	46.2	12.1	6.6	5.7	34.5
1940	444.0	88.0	*19.8*	52.4	19.1	4.1	7.7	36.4
1941	535.1	115.4	*21.6*	53.1	22.0	4.5	20.5	43.2
1942	556.3	103.1	*18.6*	49.5	9.9	4.1	13.2	30.8
1943	664.9	114.2	*17.2*	48.0	7.4	4.5	25.4	35.9
1944	815.1	129.5	*15.9*	56.2	20.4	4.2	23.1	62.3
1945	828.8	113.7	*13.7*	73.6	14.4	7.1	(cr.) 0.8	42.3
1946	810.7	125.5	*15.5*	66.0	19.3	3.6	16.9	58.3
1947	1,080.7	190.0	*17.6*	70.8	14.4	2.8	33.1	97.7

* Ratio of coverage very high, not calculated

† No excess profits tax paid. 1945 tax credit gives effect to 7.2 claim for federal tax refund for prior years.

‡ After provision for losses on foreign investments and foreign exchange in the years 1936–1945, ranging from 1.5 to 7.8, except for 1941 and 1942, when the provisions were 15.8 and 15.4, respectively.

The remarkable gains in earnings estimated for both companies in 1948 were based upon nine-month interim reports. They were typical of the experience of most major oil companies in 1948, when record-breaking demand was being filled at the peak prices previously noted. It seemed unlikely that such conditions could continue for long. The conservative approach was to appraise Phillips and Socony on the basis of results for the twelve years shown, largely disregarding 1948 results as well as those prior to 1936.

Comparison of the earnings records of the companies brought out two principal facts. First, Phillips had enjoyed a superior growth in income over the period, both gross and net. Second, because of the importance of its production operations and also its major interest in natural gas and natural gas by-products, which offered a relatively wide margin of profit, Phillips was able consistently to carry nearly twice as great a proportion of its gross income to net before reserve charges as was Socony. This wide margin of "cash income," before depreciation, depletion, and amorti-

SOCONY-VACUUM OIL COMPANY, INC.

Earnings and Price Record of Common Stock

Years Ended Dec. 31	Earnings per Share	Dividends Declared	Price Range	Range of Price-Earnings Ratios
1936	$1.38	$0.70	17½–12½	12.7–9 0
1937	1.82	0.80	23¼–13	12.8–7.1
1938	1.29	0.50	16⅜–10¾	12.7–8 3
1939	1.10	0.50	15⅛–10¼	13.8–9.3
1940	1.17	0.50	12½– 7⅛	10.6–6.1
1941	1.38	0.50	10¾– 7½	7.8–5.4
1942	0.99	0.50	10¼– 6⅛	10 4–6.2
1943	1.15	0.50	15¼·10⅛	13.3–8.8
1944	2.00	0.75	14⅜–12	7.2–6.0
1945	1.36	0 65	18¾–13½	13.8–9.9
1946	1.87	0 75	18¼–13¼	9.8–7.1
1947	3 13	1.00	17¼–13¾	5.5–4.4
1948 (estimated)	$4.50	$1.00+2% stock	23 –14⅞	5.1–3.3
12-year average, 1936–1947	$1.52 *	$0.64		
6-year average, 1942–1947	$1.72 *	$0.69		

* After adjustment to allow for the 2% stock dividend paid in December, 1948

zation charges, would serve to place Phillips in a relatively favorable position should demand-supply relationships in the industry deteriorate and competition be intensified.

At the current market prices of 58 and 17, price-earnings ratios were:

	PHILLIPS	SOCONY
Times 12-year average earnings....	15.1	11.2
Times 6-year average earnings	13.4	9.9
Times 1947 earnings.	8.6	5.5
Times estimated 1948 earnings ..	4.8	3.8

The low ratios prevailing in terms of 1948 earnings reflected for the most part a general conviction that the sensationally favorable 1948 level of earnings in the oil industry could not endure. As usual, the analyst was forced to give his primary attention to average earnings. Inspecting the latter figures, he could not fail to be struck by the substantial premium placed by the stock market on Phillips earnings relatively to those of Socony. Had Phillips stock been valued on the same basis as Socony, at 11 times twelve-year average earnings, it would have been selling at 43 instead of 58.

Reference to the annual price-earnings ranges tabulated in the earnings exhibits will show that this marked difference in price-earnings ratios was not a recent development, but on the contrary had existed in about the same proportions for many years. It appeared to be the result of several factors, most important of which were Phillips' outstanding success in developing oil and gas reserves and diversifying its operations through expansion in related gas and chemical products, on the one hand, and Socony's inability to develop production adequate to more nearly balance its operations and relative vulnerability to foreign political disturbances, on the other. The great popularity of oil equities at the time was as much due to their attributes as inflation hedges as it was to the huge earnings being reported, and a company's position in terms of underground oil reserves largely determined the relative attraction of its shares as a hedge against further price inflation.

From the facts as developed, it appeared that Phillips earnings were entitled to a more liberal valuation than those of Socony. Whether the size of the premium quoted on the market was justified was less clear. It was known that Socony's true earning power was understated by omission from published figures of its equity in the earnings of subsidiaries outside the Western Hemisphere. In 1947, for example, its reported earnings included a $5,000,000 dividend received from Standard-Vacuum Oil Company, but not an additional $6,000,000 representing its equity in that company's undistributed profits.

At 13.4 times six-year average earnings, Phillips common stock was somewhat above the level where its purchase could be justified on an investment basis, particularly when it is recalled that the six years were all years of prosperity in the industry. However, the desirable qualities of the stock were evident, the potential value of its underground reserves was very large indeed, and the record of its earnings expansion in 1947 and 1948 had been remarkable. At 12 times average earnings it probably would represent good value, and the purchaser at the current market could weigh his risks on this basis.

At 9.9 times conservatively stated six-year average earnings, Socony probably was not overpriced, though in its case likewise the conservative investor might have waited for a moderate decline. The attraction of a modest earnings ratio becomes less when it is realized that the base years were all years of prosperity in the industry and that the stock in the past, because of the relatively unattractive character of its business, had sold at a ratio below 10 times earnings just as often as above. On the other hand, those investors optimistically inclined about foreign political and economic trends might well have judged Socony to be attractive.

(5) Dividends and Their Valuation

There was little to choose between the two stocks on the basis of dividend payments. Socony's financial resources gave it greater stability, but regular payments could be expected from both. At current rates, indicated yields were 5.2 per cent on Phillips and 5.9 per cent on Socony. On the basis of six-year average payments, Phillips yielded 3.6 per cent and Socony 4.0 per cent. On the lowest dividend for the past 12 years, Phillips yielded 3.4 per cent and Socony 2.9 per cent. The 2 per cent stock dividend just paid by Socony, of course, increased the actual dividend yield only to the extent of the cash dividend on the added holding.

(6) Market Tests and Comparison with Other Issues

Marketability of both of the stocks was good. During the first eleven months of 1948, 634,500 shares of Phillips and 2,807,000 shares of Socony-Vacuum had been sold on the New York Stock Exchange. Price fluctuations, however, had been fairly wide. As of December 15, both issues had declined approximately 25 per cent from their 1948 peak prices. They nevertheless were close to the top of their price ranges for the earlier years shown in our exhibits.

The prices of the stocks were in line with those of other major oil companies, in terms of average as well as current earnings and dividends. Because of its strongly diversified position and favorable trends, Phillips sold on a basis comparable to that of the most favorably situated companies. Socony was selling at a relatively low ratio to earnings and a particularly low ratio to book value. Comparison with selected leading issues outside the oil industry indicated that low ratios of market prices to extraordinarily good 1948 earnings were the rule, but that many of the better-quality stocks were selling at 12 to 15 times average earnings.

Summary of Significant Points

PHILLIPS PETROLEUM

Points of Strength

Basic industry with strong growth trend
Well-balanced, low-cost operator
Very large oil and gas reserves
Increasingly diversified sources of earnings
Expanding trend in earnings, with very large gains in 1947–1948

Points of Weakness

Relatively high price-earnings ratio
Abnormally prosperous conditions in the oil industry

SOCONY-VACUUM

Points of Strength

- Basic industry with strong growth trend
- Book value nearly twice market price
- Stable earnings, with some growth, and large gains in 1947–1948
- Moderate price-earnings ratio

Points of Weakness

- Unduly dependent upon purchased crude
- Uncertain outlook for large foreign operations
- Abnormally prosperous conditions in the oil industry

Both issues had merit, but Phillips appeared to be of better quality in terms of growth, diversification, and low-cost operations. The lower price-earnings ratio and relatively higher book value of Socony did not warrant overlooking these important factors. At the same time, Phillips' price-earnings ratio was sufficiently high that the conservative investor was justified in waiting to see if less favorable developments in 1949 might not make the stock available somewhat more cheaply than in a year of unparalleled prosperity in the industry such as 1948.

Examples of Valuation: Borden and National Dairy. Thus far we have examined the stocks of companies in favorably situated industries. It will add realism to supplement these studies with brief consideration of some of the problems involved in appraisal of less fortunate enterprises. We need not seek examples of those industries facing an obviously declining trend in demand, for they hold no interest for the common stock investor. There are important border-line cases, however, of ailing industries whose profits have suffered from adverse developments yet which possess fundamentally strong factors of demand. One such industry in 1940 was the dairy products industry, in which by far the most important units were The Borden Company and National Dairy Products Corporation.

A decade earlier, because of the basic and stable nature of demand for dairy products, these companies had enjoyed great prestige as "depression-proof" businesses. The restricted earning power and reduced dividends following 1931 had been a great disillusionment to stockholders, bringing about a lasting deflation in market values. Borden common stock on September 30, 1940, was quoted at 20, a price identical with the low reached at the culmination of the great bear market in 1932, although the typical common stock in other industries was selling at several times its 1932 low. National Dairy common stock on the same date in 1940 was available at 13¼, compared with a low price of 14⅝ in 1932. Nevertheless, the dividend records of both stocks were unbroken, and a fair measure of stability in earning power had been demonstrated since 1932.

(1) NATURE OF THE ENTERPRISE

The Industry. The dairy products industry was a processing and distributing business obtaining milk from farmers and distributing it in the form of fluid milk, cream, butter, cheese, ice cream, condensed and evaporated milk, and a variety of other products. Milk was an essential element in the nation's diet, and health authorities had for long attempted to promote larger consumption. In the preceding decade, total consumption of fluid milk had held virtually unchanged, declining on a per capita basis, but the total for all milk products had increased 9 per cent. Milk prices during the period had fluctuated widely. In terms of dollar volume, the milk industry was one of the nation's largest, and its purchases from farmers constituted the largest single source of farm income.

The vital nature of the industry, paradoxically, had proved in recent years a definite point of weakness rather than any assurance of stability and prosperity. The industry possessed the characteristics of a public utility in many respects, and it was subject to even stronger and more varied political pressures than were the utilities. The most active pressure came from the farmers and farmers' cooperative associations who supplied the raw milk and worked toward securing higher prices for their product. The farmers were assisted by government agencies which in many regions helped to fix milk prices or supported prices by purchasing excess supplies of milk products, while at the same time encouraging elsewhere the expansion of dairy farming. A second pressure came from the labor organizations of milk drivers who delivered the milk products to stores and private homes and who not unnaturally worked in many instances to maintain or increase an already high cost of distribution. The high level of milk prices at retail to which these influences contributed appeared definitely to have exercised a restraining influence on consumption.

Perhaps a more significant long-range pressure, however, was the contrary pressure from the consuming public and from government agencies to force down retail milk prices in the interest of the public health. In this they were aided by the fact that milk was a staple "poor man's" and "babies' " food. The farm groups and the consuming groups, for the most part, conveniently neglected their essential opposition and tended to place the blame for "low" prices, on the one hand, and "high" prices, on the other, on the unfortunate middleman, the dairy industry.

The problem of Borden and National Dairy, in particular, in balancing the demands of farmers and consumers was aggravated by the enormous size of their businesses, which gave rise to frequent charges of monopoly. The dairy products industry had been investigated by government agencies on numerous occasions, often with conclusions adverse to the major companies, and various anti-trust suits had been filed relative to practices followed in some regions. Recent investigations included exhaustive studies by the Federal Trade Commission, the Department of Agriculture, and the State of New York. Extensive testimony attacking the major companies as monopolistic had been heard by the Temporary National Economic Committee in 1939.

One consequence of the pressures which existed was that fluid milk operations, despite well-maintained volume and fairly stable prices, no longer contributed significantly to the profits of most of the dairy products companies. Borden, for example, reported in 1936 that only 11 per cent of its net had been obtained from fluid milk, although this division was believed in the trade to provide half of the company's total sales. Ice cream and cheese were the principal sources of profit for the industry, though they possessed a less stable demand than milk. Ice cream consumption, for example, was strongly influenced by weather conditions as well as by fluctuations in purchasing power. Consumption of evaporated milk, powdered milk, and certain other manufactured products had been expanding. Butter was hardly more satisfactory than fluid milk as a source of profit, and inventories of butter were subject to sharp fluctuations in value. No serious competition was in prospect from the products of other industries, except that which already existed between oleomargarine and butter, but chain stores selling their own dairy products were offering important competition in some areas. There was reason to expect gradual expansion in the consumption of dairy products, yet the analyst was justified in assuming that the principal usefulness of fluid milk would lie in absorbing overhead charges. Steps being undertaken with the aim of cutting distribution costs, such as the use of fiber containers and two-quart instead of one-quart containers, seemed wise but were not getting at the root of the trouble. A dairy company primarily dependent on fluid milk for profit was likely to represent a poor risk.

A real possibility, supported by trends in regulation in a number of states, was that the fluid milk industry would gradually acquire full public utility status, being made subject to fixed prices and permitted a fair return. The establishment of central milk depots to eliminate delivery expenses seemed to offer promise of low-cost distribution, perhaps on a noncompetitive basis. Still, the prospect of increased regulation with its inevitable problems offered little present incentive for investment in the industry, and if the two common stocks under investigation were desirable it must be on some other basis.

The Companies. The outstanding fact about the two subject companies was their dominant size and the nation-wide extent of their operations. It was estimated that Borden handled 5 per cent of the nation's milk and National Dairy handled 9 per cent. Sales of the next largest competitor were only one-third those of Borden. This commanding position, which meant that one or both of the two companies were represented in most of the major cities of the nation, was the product of a feverish series of mergers of established companies in the period 1925–1930. Management was, by and large, still decentralized because of the large number of individual units. The Borden Company in 1940 was primarily an operating company, with relatively few subsidiaries, while National Dairy was a holding company with a long list of wholly owned subsidiaries and a few subsidiaries in which minority interests existed.

The activities of the companies were essentially parallel except for the relative importance of different divisions. In this respect, National Dairy was in the more fortunate position, since cheese and ice cream were its relatively more important products. Both companies had attempted to diversify their businesses in recent years, with National Dairy being the more successful. This company reported that its 1939 sales in dollars were divided as follows: fluid milk, 29 per cent; cheese, 23; ice cream, 14; butter, 9; cream, 6; all other, 19. The last classification included a profitable mayonnaise and salad dressing business. The figures for the subdivisions of Borden's business were not reported, but in sales volume its fluid milk and canned milk divisions were believed to be considerably more important and its cheese division materially less so. Both companies operated in Canada and obtained revenues from other foreign countries, but for neither was foreign business a vital factor.

The strong position of National Dairy in the production of cheese (roughly 40 per cent of total national output) through its Kraft-Phenix Cheese subsidiary was a major factor in a much more favorable sales record during the 1930–1939 period and also in a consistently wider margin of profit. It helped to make the company's outlook for the future appear somewhat more favorable than that for Borden. The table that follows compares tonnage and dollar sales statistics for National Dairy's major products.

NATIONAL DAIRY PRODUCTS CORPORATION

Operating Statistics (1930 = 100)

Year	Tonnage Sales Volume			Dollar Sales Volume		
	Fluid milk	Cheese	Ice cream	Fluid milk	Cheese	Ice cream
1930	100	100	100	100	100	100
1931	94	97	85	86	79	82
1932	89	96	61	69	64	55
1933	82	96	55	62	64	47
1934	82	116	64	68	81	54
1935	80	123	64	68	95	56
1936	81	137	74	70	114	64
1937	81	146	81	71	124	70
1938	79	156	74	70	120	65
1939	81	164	75	69	120	65

(2), (3) CAPITAL STRUCTURE, FINANCIAL POSITION, AND ASSET VALUE

The essential facts relative to the capital structure, financial position, and asset value of the two companies are shown in the table on page 552. Both companies were strong financially, but Borden obviously was favored by the absence of debt. With its common stock valued at the market price on September 30, National Dairy's senior obligations amounted to a 45 per cent "pyramid." The table reveals, however, that during the last five years National Dairy had been able to reduce its funded debt by $11,300,000 while increasing working capital $7,000,000. At the same time, Borden's working capital had declined.

National Dairy's funded debt consisted of 3¾ per cent debentures due in 1951, callable at 105 (or less for sinking fund or after May 1, 1941) and quoted on the market at 106. There were no onerous provisions, though a sinking fund amounting to $1,876,000 annually was required. Warrants attached entitling bondholders to purchase common stock had expired May 1, 1940. The two classes of 7 per cent cumulative preferred stock outstanding, Class A and Class B, were equal in priority. They were entitled to 100 on liquidation and 105 if called for redemption. Provision was made for retirement annually of $250,000 of the Class B if available at 100. It was currently quoted at 110 and had ranged between 114 and 107 during the year to date. Fixed charges and preferred dividends were covered by a wide margin, averaging 4 times during the past five years.

THE BORDEN COMPANY AND NATIONAL DAIRY PRODUCTS CORPORATION
Comparative Financial Data
(in thousands of dollars, as of December 31)

	Borden		National Dairy	
	1939	1934	1939	1934
1. CAPITAL STRUCTURE				
Funded debt	.	1,700	56,899 (3¾%)	68,215 (5¼%)
Retirement reserve	3,372	..	.	..
Minority interests	..	..	2,359	2,559
Preferred stock (at par)	..	..	9,871 (7%)	9,871 (7%)
TOTAL SENIOR OBLIGATIONS	3,372	1,700	69,129	80,645
Common stock (at market, Dec. 31)	94,000 (4,396,704 shs. @ 21⅜)	104,000 (4,396,704 shs. @ 23¾)	105,000 (6,255,247 shs. @ 16¾)	103,000 (6,254,503 shs @ 16½)
TOTAL MARKET VALUATION	97,372	105,700	174,129	183,645
2. WORKING CAPITAL				
Cash & marketable securities	25,704	24,150	16,727	21,897
Receivables	12,236	13,046	17,803	15,055
Inventories	17,514	19,365	32,113	19,524
TOTAL CURRENT ASSETS	55,454	56,561	66,644	56,476
TOTAL CURRENT LIABILITIES	16,251	13,228	21,244	18,143
NET WORKING CAPITAL	39,203	43,333	45,400	38,333
Current ratio	*3 4*	*4 3*	*3 1*	*3 1*
Quick ratio	*1 6*	*1 8*	*0 8*	*1 2*
% inventories to c a	*32*	*34*	*48*	*35*
% inventories to sales	*8*	*9*	*9*	*7*
*N. w. c. per common share**	*$8 15*	*$9 50*	*none*	*none*
3. OTHER ASSETS				
Property	116,630	146,376	151,318	162,994
Less: Depreciation	49,817	57,686	53,637	59,918
NET FIXED ASSETS	66,813	88,690	97,681	105,076
Investments & miscellaneous	2,546	2,251	5,576	3,703
Net fixed assets & investments per common share	*$15 80*	*$20 70*	*$12 70†*	*$10 60†*
Indicated book value	*$23 95*	*$30.20*	*$12 70*	*$10.60*
Market price, Sept. 30, 1940	*$20 00*		*$13 25*	
% book value to market	*120*		*96*	

* After deduction of senior obligations.

† After provision for senior obligations not covered by working capital.

It was encouraging to note that book values were equal to or above market values of the common stocks, in view of the possibility of increasingly thorough public regulation. The manner in which Borden's book valuation had been reduced since 1934, however, called attention to the greater significance of earning power.

(4), (5) Earnings and Dividends and Their Valuation

The table of comparative earnings and price data on page 554 offers convincing evidence of the fundamental change in the industry's position after 1931. The change was even more emphatic with respect to profit margins than in sales. The table also brings out clearly the relatively more satisfactory performance of National Dairy in both respects.

Disregarding 1930 and 1931 as representing the remote past, the analyst might well have been impressed by the stable earnings records of both companies. He might reasonably have concluded also, from the industry factors we have discussed and from comparative profit margins, that the earnings of National Dairy were to be considered the sounder despite the leverage afforded by senior charges of roughly $0.50 per share. Both companies had made substantial charges to depreciation, Borden's 1939 charge amounting to $1.41 per common share and National Dairy's to $1.63.

Current earnings trends favored Borden, which had reported $0.75 in the first half of 1940, compared with $0.79 in the same period of the previous year. National Dairy, on the other hand, had reported $0.76 in the first half as compared with $1.01 the year before, despite an increase of 4 per cent in net sales.

The valuation placed by the market on earnings, however, had the effect of eliminating, at least temporarily, the analyst's interest in Borden, already lessened by the company's excessive dependence on fluid milk. The industry factors we have outlined militated against any other than a moderate valuation of average earnings (i.e., 10 to 12 times earnings at the most) despite the economic necessity for the business and the stable earnings of recent years. Borden at 20 was selling at 13.1 times five-year average earnings. Such a basis might have been considered reasonable, in view of the company's financial strength, but it was not possible to look on it as an undervaluation.

National Dairy stock was not open to criticism on this basis. At 13¼ it was selling at only 7.7 times average earnings. The analyst might instead, in fact, have been concerned as to whether such a low valuation might not reflect hidden weakness. Some reassurance was to be had, however, from the relatively low price-earnings ratios prevailing on

THE BORDEN COMPANY AND NATIONAL DAIRY PRODUCTS CORPORATION

Comparative Earnings and Price Data

(years ended December 31)

Year	Borden				National Dairy			
	Net sales (millions of $)	Net operating income (millions of $)	Net sales (1930 = 100)	Per cent margin of profit	Net sales (millions of $)	Net operating income (millions of $)	Net sales (1930 = 100)	Per cent margin of profit
1930	345.4	23.3	100	6.7	374.6	30.9	100	8.2
1931	284.6	18.0	82	6.3	320.8	27.7	86	8.6
1932	212.3	7.9	61	3.7	252.7	16.4	67	6.5
1933	186.3	3.7	54	2.0	231.2	11.1	62	4.8
1934	215.7	5.0	62	2.3	267.4	10.7	71	4.0
1935	229.9	5.7	66	2.5	290.4	13.7	77	4.7
1936	238.8	9.3	69	3.9	329.2	17.4	88	5.3
1937	237.6	7.0	69	3.0	351.0	14.0	94	4.0
1938	212.0	7.8	61	3.7	334.4	15.4	89	4.6
1939	208.8	9.2	60	4.4	336.7	17.4	90	5.2

Year	Borden			National Dairy		
	Earned per common share*	Dividends declared	Price range	Earned per common share	Dividends declared	Price range
1930	$4.85	$3.00†	90⅜–60⅛	$4.10	$2.15†	62 –35
1931	3.66	3.00†	76½–35⅛	3.47	2.60	50¾–20
1932	1.71	2.50	43⅛–20	1.88	2.30	31⅜–14⅜
1933	1.06	1.60	37½–18	1.01	1.20	25¾–10½
1934	1.02	1.60	28⅛–19⅞	0.93	1.20	18¾–13
1935	1.10	1.60	27¾–21	1.38	1.20	22⅛–12⅞
1936	1.80	1.60	32⅜–25⅝	2.01	1.20	28¼–21
1937	1.43	1.60	28 –16	1.53	1.20	26⅛–12
1938	1.51	1.40	19⅝–15	1.69	1.00	16½–11½
1939	1.81	1.40	22 –16½	1.97	0.80	18⅛–12½
1940 (6 mos.)	0.75	0.60	24¼–17	0.76	0.40	18⅝–11⅞
5-year average, 1935–1939‡	$1.53	$1.52		$1.72	$1.08	

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* Before minor foreign exchange adjustments in 1931, 1933, and 1939.

† Plus 3% in stock

‡ A 10-year average would have been of little usefulness in this case. 1929 figures are also omitted because they were not comparable with 1930

common stocks in general at the time, from the fact that the sizable funded debt undoubtedly led many investors to avoid the stock, and also from the current dividend yield, which was less than that obtainable on Borden.

Were the analyst to judge by the average dividend during the preceding five years, the prospective yield on National Dairy would have been 8.1 per cent, compared with 7.6 per cent on Borden. Taking instead 1939 dividends, which were the same as indicated current rates, he would have found a yield of only 6.0 per cent on National Dairy, with 7.0 per cent obtainable on Borden. Borden was following a policy of full distribution of earnings, while National Dairy was engaged in a program of reduction of funded debt and building up of working capital. These policies were expected to be continued, with a consequent depressing effect on National Dairy stock and sustaining effect on Borden. It was reasonable to expect on the basis of the record, however, that the $0.80 rate on National Dairy would be maintained, thus providing at least a 6 per cent return.

(6) Market Tests and Comparison with Other Issues

Both of the issues possessed a high degree of marketability and might in addition be said to have experienced less violent fluctuations in market price in the past than was typical of other stocks in the same price class. Both issues were listed on the New York Stock Exchange. At the end of 1939, Borden reported 46,889 stockholders and National Dairy, 70,078.

There was no other dairy products company of comparable size and scope. However, Beatrice Creamery Company was a large company, with a pyramided capital structure not unlike that of National Dairy, whose shares were listed on the New York Stock Exchange. Its current market price amounted to 9.7 times five-year average earnings, and its indicated yield was 7.3 per cent. With reference to current earning power, its price was only 6.7 times earnings for the year ended May 31, 1940, while National Dairy and Borden were selling, respectively, for 7.7 and 11.3 times their latest available earnings, those for the twelve months ended June 30, 1940.

Summary of Significant Points

BORDEN

Points of Strength

Demand for products stable

Extremely strong and well-entrenched company

Points of Strength (Cont.)

One-class capital structure
Stable recent earnings record
Liberal dividend record, high current yield

Points of Weakness

Excessive share of business exposed to seriously adverse political pressures
Narrow margin of profit
Unfavorable sales experience
Price-earnings ratio not low

NATIONAL DAIRY

Points of Strength

Demand for products stable and to some extent growing
Extremely strong and well-entrenched company
Stable recent earnings record
Low price-earnings ratio
Liberal dividend record, satisfactory current yield

Points of Weakness

Part of business facing seriously unfavorable trends
Pyramided capital structure

Clearly, the dairy industry was likely to remain confronted with political problems, particularly in the case of fluid milk. In consequence, a common stock such as Borden, which could not be considered undervalued, was not attractive. On the other hand, National Dairy was available on what appeared to be a sufficiently favorable basis to offset the various unsatisfactory aspects of the industry.

SUPPLEMENTARY READINGS

See page 519.

CHAPTER

31

Selection of Common Stocks

(CONTINUED)

A. ANOMALIES OF MARKET VALUATION

Influence of Current Trends and Expectations. In the foregoing discussion of valuation of common stocks from the standpoint of the investor, we have repeatedly stressed attention to average results rather than the fortunes of any single year, and primary reliance on demonstrated earning power and dividend-paying ability as against mere estimates of future developments. Such an approach, insisting on a solid foundation of experience, is not at all inconsistent with the essentially forward-looking nature of common stock analysis. Many persons, it is true, will contend that relatively much greater importance should be given to current trends and to predictions of the future than to the "dead" record of the past. However, as we have pointed out before, although one cannot presume to judge individual instances by arbitrary rules, heavy emphasis on developments of the moment and of the unpredictable future ordinarily serves to multiply the hazards in the path of satisfactory appraisal. In our opinion, such an approach is applicable mainly to young, small, or otherwise highly unstable enterprises which rarely are entitled to other than speculative consideration at best.

Nevertheless, the strong influence of current profit trends and of expectations for the near-term future on market prices should not be underestimated. What is in reality only one of several legitimate ingredients of the price of a stock all too often in practice becomes the dominant consideration. Sometimes this will reflect sound judgment based on factual information of developments that invalidate past experience. More often, it will mean emphasis on purely temporary conditions, giving weight to prevalent enthusiasm, fright, prejudice, or general misinformation. The foolish as well as the shrewd are represented in the market place.

Comparative Table of Leading Common Stocks

As of December 30, 1948

	Cannon Mills Company	General Foods Corporation	Houston Lighting & Power Company	Inland Steel Company	Sears, Roebuck & Company	Union Carbide & Carbon Corporation
Industrial classification .	Textiles	Packaged foods	Electric utility	Steel	Retail trade	Chemicals
CAPITALIZATION (millions of $, 12/31/47)					(1/31/48)	
Funded debt, etc	. . .	27.6	45.0 *	54.0	.	150.0
Preferred stock, minority interests		24.9	9.7			
Common stock (at market, December 30) .	77.8	223 0	53.4	193.5	927 6	1,166.0
(000's of shares)	*(2,074)* †	*(5,575)*	*(1,228)*	*(4,899)*	*(23,634)*	*(28,439)* ‡
% senior obligations (on basis above)	*none*	*19.0*	*50.6*	*21.8*	*none*	*1.4*
ASSETS (millions of $, 12/31/47)					(1/31/48)	
Net working capital .	59.7	109.1	2.5	104.9	315.4	275.7
Net property	15.7	54 5	62 5	98.7	150.6	238.1
Investments, etc. . .	0.5	3.7		7.1	16.6	29.2
Current ratio . .	3.5	3.9	*1.4*	3.1	2.5	3.7
N. w. c. per share § .	*$28.80*	*$10.15*	*none*	*$10.39*	*$13.33*	*$ 4.75*
Indicated book value per share	*$36.40*	*$20.60*	*$21.58*	*$31.75*	*$20.42*	*$13.75*
% book value to market (December 30) . .	*91*	*51*	*50*	*80*	*52*	*34*
EARNINGS & DIVIDENDS	(E) (D)	(E) (D)	(E) (D)	(E) (D)	(E) ‖ (D) ‖	(E) (D)
1944	$1 65 $1.00	$2.41 $1.60	$2 48 $1.80	$2.09 $1.50	$1.46 $1.06	$1.24 $1.00
1945 . . .	1.62 0.50	2.36 1.60	2.51 1.80	2 01 1 50	1 52 1.06	1.36 1.00
1946	9.19 1.00	3.79 2.00	2 74 1.80	3.18 1.83	4.24 1.75	2.03 1.00
1947	7 28 2.50	3.19 2.00	3 32 1.95	4 61 ¶ 2 50	4 56 1.75	2.66 1.25
1948 (earnings estimated)	8.00 5.25	4.50 2.00	3.50 2.05	6.50 3.00	5.50 2.25	3.50 1.67
5-year average . .	$5.55 $2.05	$3.25 $1.84	$2 91 $1.88	$3.68 $2.07	$3.45 $1.57	$2 16 $1.18
Market price, December 30	40	40	43½	39½	39¼	41
Price times average earnings	*7.2*	*12.3*	*14.9*	*10.7*	*11.4*	*19.0*
Price times 1947 earnings	*5.5*	*12.5*	*13.1*	*8.6*	*8.6*	*15.4*
Yield on average dividend	*5.1%*	*4.6%*	*4.3%*	*5.2%*	*4.0%*	*2.9%*
Yield on 1948 dividend	*13.1%*	*5.0%*	*4.7%*	*7.6%*	*5.7%*	*4.1%*
PRICE RANGE (calendar years)						
1938–1941.	21 -10½	49⅜-22⅞	. . . . . **	32⅞-18¾	22 -11¾	31½-19
1944–1947	47½-21¼	56⅛-34¼	48-31½	44⅝-23¾	49⅝-24⅞	41⅝-25¼
1948.	47¾-38	41 -34	49-38	47⅞-34⅜	43¼-31¾	43¼-31⅛

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* Giving effect to sale of $15,000,000 additional mortgage debt in April, 1948 Assets not adjusted.

† 1,037,000 voting common shares and 1,037,000 non-voting Class B, sharing equally in earnings and dividends. Class B stock, unlisted, was quoted at 35.

‡ Reflecting 3-for-1 stock split in May, 1948

§ After deduction of senior obligations.

‖ Years ending the following January 31

¶ After $1.49 charge to reserve for contingencies.

** Offered to the public May, 1943.

Differences in the Valuation of Good-Quality Stocks. An example of the wide differences which may exist at the same time in the valuations placed on the earnings and dividends of a group of good-quality common stocks is afforded by the compilations in the table on page 558 showing stock prices and brief statistical data for six of the nation's leading corporations as of December 30, 1948. Representing a cross section of industries, the prices of these common stocks illustrate typical differences in valuation arising from the investor's appraisal of qualitative characteristics and of divergent industrial trends, both current trends of profitability and anticipated longer range developments.

The stocks included in our table were selling at the time at roughly equivalent prices, and all had been well-known, important issues for many years. Despite the prominence and strength of the subject companies, however, it is apparent that widely differing valuations were attached to their respective earnings and dividends. The following summaries restate some of the essential factors.

PRICE-EARNINGS RATIOS

As of December 30, 1948

	On Basis of 5-Year Average Earnings	On Basis of 1947 Earnings
Cannon Mills..	7.2	5.5
Inland Steel..	10.7	8.6
Sears, Roebuck. . .	11.4	8.6
General Foods ..	12.3	12.5
Houston Lighting	14.9	13.1
Union Carbide	19.0	15.4

PER CENT DIVIDEND YIELDS

As of December 30, 1948

	On Basis of 5-Year Average Dividends	On Basis of 1948 Dividends
Inland Steel	5.2	7.6
Cannon Mills.	5.1	13.1
General Foods . .	4.6	5.0
Houston Lighting	4.3	4.7
Sears, Roebuck.........	4.0	5.7
Union Carbide	2.9	4.1

It will be interesting to look briefly into some of the broader reasons underlying these differences in appraisal by the public.

Cannon Mills Company. The strikingly lower price-earnings ratios and more favorable yield on Cannon Mills common stock seemed at first glance surprising in view of the company's financial strength, substantial book value per share, and dominant position in an important segment of a basic industry. It had enjoyed substantial growth over a long period of years and was believed to supply half of the entire domestic market for cotton towels. By virtue of fully integrated operations, efficient plants, and a normally stable demand supported by widespread national advertising, it was justifiably considered to be the most strongly situated concern in the cotton textile industry. This reputation was supported by an unbroken record of earnings and dividends since its organization in 1928. Investigation, however, disclosed certain qualifying factors, especially: (1) despite the basic importance of cotton textile manufacture, this industry had a long record of intense competition, with large losses frequently reported by most manufacturers, and investors with this in mind were unwilling to give even the best equities in the industry a high earnings valuation in prosperous years; (2) earnings for 1946–1948 were so far in excess of earlier experience and so obviously related to the filling of deferred demand, to the general boom, and to sharp price increases in the industry that the general expectation was for lower earnings in the future. Current sales of cotton products were lagging somewhat, and concern also existed over the future course of raw cotton prices. The very large dividend return afforded by Cannon Mills in 1948 was misleading, since it included a $2 extra dividend which might well not be repeated. The prevailing opinion was that a $3 annual dividend rate was all that should be expected.

Inland Steel Company. The earnings of Inland Steel were valued more highly than those of Cannon Mills. Although the steel industry had in the past been notoriously subject to violent cyclical fluctuations, its record in terms of earnings had been much superior to that of the textile industry. Moreover, Inland was an advantageously situated unit which could be expected to be somewhat more stable than most steel companies. It was recognized to be one of the lowest cost producers in the industry, and it had consistently operated at a higher-than-average rate of capacity. It had failed to earn a profit in only one year during the 1930's and had likewise failed to pay a dividend in only one year. As this would indicate, its profit margin was wide and relatively steady. Its ratio of wage payments to sales in 1947 was the lowest of any major concern in the industry. Nevertheless, despite Inland's highly successful record, the market was not disposed to place a high valuation on the earnings of a relatively unstable industry in one of the most prosperous years of its history.

Sears, Roebuck and Company. The earnings of Sears were, in turn, valued more highly dollar-for-dollar than those of Inland Steel. The reason lay primarily in the greater stability that was believed to exist in the company's business, mail order and chain store distribution of general merchandise. Sears had enjoyed excellent growth over a long period and was the largest retail enterprise in the country. It was still expanding by adding stores, and in recent years had also undertaken to extend its operations to Mexico and South America. Relative to companies in some other industries, however, the valuation placed on Sears was held down by factors such as: (1) its business consisted to a significant degree of refrigerators, stoves, and similar household equipment, sales of which were normally subject to pronounced cyclical fluctuations; (2) its large retail stores were concentrated in industrial areas where sales in general tended to fluctuate relatively sharply; (3) the large inventories necessary meant that risk of a considerable inventory loss was always present should adverse commodity price trends develop. Because of heavy capital requirements for expansion and improvement programs, and need for increased working capital to handle the large post-war expansion in sales volume, it was likely that dividends would be held at a conservative level for some time, although a $2 annual rate seemed a reasonable expectation.

General Foods Corporation. The valuation placed by the market on General Foods reflected its remarkable record of stable earnings and dividend payments over a long period of years. The numerous and well-diversified brands of packaged foods manufactured and distributed by General Foods had enjoyed relatively stable demand in times of depression and were supported by large advertising expenditures and forward-looking development policies that had brought about persistent growth despite intense competition from other manufacturers and, particularly, chain stores promoting their own brands. The company had been outstandingly successful in pioneering the "Birds Eye" frozen food process, and it held a very favorable position in this rapidly developing industry. General Foods had never operated at a deficit, and it had had an unbroken dividend record since 1922. On the other hand, competition had kept profit margins narrow, and that for 1947 was the lowest in the company's history. There was basis for some doubt as to whether this narrowed margin together with the large inventories required by greatly expanded sales volume might not render the company more vulnerable in the future to depression influences.

The large excess of market value over book value for General Foods as well as for Sears, Roebuck was a factor contributing to a limited extent to conservative valuation of earning power, especially since the imposition of excess profits taxes was under discussion in Congress at the time. Such an excess of market value, however, was typical of successful enterprises, as comparison with statistics of other companies made evident. It indicated in these instances that the companies had been able to employ their assets particularly effectively in the production of profits and dividends.

Houston Lighting & Power Company. The relatively liberal earnings ratio of Houston Lighting reflected the fact that this company ranked as one of the soundest large utility properties in the nation, and it offered the stability typical of high-grade electric utility companies. The stock was somewhat unseasoned, having been offered to the public first in 1943 when the former owner, National Power and Light Company, had been forced to divest itself of ownership pursuant to requirements of the Public Utility Holding Company Act. However, the company had a long record of successful operation, and lack of seasoning of the stock was in consequence of minor importance. The region served, including the cities of Houston and Galveston, despite relatively heavy dependence on the oil and natural gas industries, was one of the soundest and at the same time most rapidly growing areas in the nation. There was no problem of competition, franchises appeared to be satisfactory, and residential rates were low. Plant was relatively new and efficient, and the debt ratio was conservative. The principal adverse factor was the large size of the construction program which had been made necessary by the rapid growth of the area. A five-year program involving $60,000,000 of new construction had been undertaken in 1948. It was expected that at least half of the total would be financed by new security issues, and $15,000,000 had already been obtained from first mortgage bonds sold in April. Retained earnings, depreciation, and other reserves would also contribute to financing construction, and it was to be expected that dividends would be restricted by this factor. On the other hand, the quarterly dividend had recently been raised to 55 cents, and it appeared that continuation of payments at a $2.20 annual rate was a reasonable expectation, making the indicated yield at market price 5.1 per cent.

Union Carbide & Carbon Corporation. Union Carbide's high price-earnings ratios and low dividend yield were explained by two factors: (1) this company's stock was one of the most popular "blue-chip" issues in the universally favored chemical industry; (2) it had made tremendous new investments in plant during the post-war years, and the beneficial effects of these expenditures had been as yet realized only in part. Popularity of the chemical industry reflected its highly favorable growth trends, broad diversification of products and customers, and relatively low labor costs. Union Carbide's position was outstandingly strong in the industry, even though its great size limited the relative importance of its probable future growth. It possessed substantial interests in foreign operations. Its research activities had been aggressive and had covered a wide range of products. Its financial condition was strong, and it had earned a net profit and paid a dividend every year since its organization in 1917. In short, the stock was entitled to sell at a relatively high valuation. The conservative investor might have questioned, however, when weighing this issue against others of good quality, whether its price contained an excessive element of anticipation of future growth, and he would have noted its relatively small book value and the fact that, despite increasing diversification, much of its business was still dependent on the highly cyclical steel and metalworking industries.

Differences in the Valuation of Secondary Issues. The above comparison of leading good-quality common stocks may well be supplemented by an illustration of the even greater differences in valuation that often exist among more speculative issues and among "secondary" or less well-known and less popular stocks. The tables following bring out the valuations actually placed on selected stocks of this type under the highly unsettled conditions prevailing on May 31, 1940. They reflect a disturbed market atmosphere contrasting strongly with the prosperity and relative calm of December, 1948. We shall comment in abbreviated fashion on each issue.

Because the date chosen followed three weeks of panicky selling on the stock exchanges as a consequence of intensification of the war in Europe, valuations were in general conservative. An indication of the market valuations possible in periods of optimism may be obtained by reference to the price ranges shown.

The stocks included were selling at the time chosen at roughly similar prices, yet the variations in earnings, dividends, and asset values were extremely wide. The influence of the European war and of prospective expansion of national defense expenditures were major factors in these differences, though by no means the only significant factors.

American Car and Foundry and Loews Inc. In the first table, the most striking variation was between American Car and Foundry and Loews Inc. Though each stock was quoted at 23, the former had not reported a profit in any recent year and had paid only $0.25 in dividends since 1931, while the latter had average earnings for the preceding five years of $6.04 and had paid a total of $19.25 in cash dividends during the five-year period.

American Car was one of the major units in the manufacture of railroad equipment, an industry that had been depressed for an entire decade, and stockholders lived mainly in the hope that the periodic waves of purchasing of new equipment by the railroads might again broaden out into activity such as that seen in the 1920's. Thus far, experience in this respect had not been reassuring, and competition was also proving troublesome. The company, despite persistent deficits, had been able to preserve a strong financial position, and the common stock benefited from the fact that preferred dividends were not cumulative. With its large idle plant capacity, the company had made considerable effort to diversify its output in lines not dependent on the railroads and had manufactured buses, street cars, gasoline engines, carburetors, and small boats, but these ventures had not yet proved profitable.

The interim accounts for the six months ending October 31, 1939, had shown a substantial deficit, and it appeared certain that the report for the year ended April 30, 1940, would also reveal a loss. The outlook had been improved, however, by the fact that the company had been able in recent months to obtain a large order for tanks from the United States Army and orders for shells and other munitions from the British government. A profitable armament business was done by American Car and Foundry in World War I, and speculators in consequence had been quick, on the initiation of hostilities in the preceding year, to appraise the company as a promising "war baby." It is probable that the intensification of the war in May was an important factor supporting the price of the company's stock.

Loews, on the other hand, had clearly been injured by the war. It was strong financially and the dominant unit in its industry. Yet, about 30 per cent of its film rentals were believed to have been obtained from foreign countries, principally the warring nations, and 17 of its 157 theaters were located abroad. Coupled with this fact was the tendency of investors to look on the motion picture industry as particularly hazardous, because of the financial difficulties that had been experienced by other major concerns in the industry, the peculiarities of accounting that sometimes obscured results, the high salaries that were paid actors and officials, and the general uncertainties involved in making large investments in pictures whose success could rarely be predicted with confidence. However, Loews had been consistently successful, partly because of steady profits from its theater chain, and its earnings and dividend record could not be dismissed lightly. Earnings for the 28 weeks ended March 14, 1940, were $3.79 per share, compared with $3.68 in the like period the year before. Three $0.50 regular quarterly dividends had al-

Comparative Table of Secondary Stocks (I)
As of May 31, 1940

	American Car and Foundry* Company	Loew's Incorporated	Bayuk Cigars, Incorporated	Victor Chemical Works
Industrial classification	Railroad equipment	Motion pictures	Cigars	Chemicals
CAPITALIZATION (000's of $)	(4/30/39)	(8/31/39)	(12/31/39)	(12/31/39)
Funded debt, etc.		32,996	17	961
Preferred stock, minority interests	28,945*	15,676	840	..
Common stock (at market, May 31)	13,800	38,300	9,800	13,200
(000's of shares)	*(599)*	*(1,666)*	*(393)*	*(696)*
% senior obligations (on basis above)	*67 7*	*56 0*	*8 0*	*6 8*
ASSETS (000's of $)				
Net working capital	17,649	52,908	8,256	2,843
Net property	64,042	72,979	2,269	4,898
Investments, etc.	6,084	15,778	255	.
Current ratio	*12 5*	*5 1*	*7 7*	*4 4*
N. w. c. per share†	*none*	*$ 2 55*	*$18 80*	*$ 2 70*
Indicated book value per share	*$98 25*	*$55 75*	*$25 30*	*$ 9 75*
% book value to market (May 31)	*427*	*242*	*101*	*51*
EARNINGS & DIVIDENDS	Years ended April 30 (E) (D)	Years ended August 31 (E) (D)	Years ended December 31 (E) (D)	Years ended December 31 (E) (D)
1935	$d*6 66* ..	$4 52 $2 25	$2 17 $0 25‡	$1 27 $1 12
1936	d*4 35* ..	6 41 2 50	2 09 1 00	1 31 1 25
1937	d*1 36*	8 41 8 50	2 17 1 00	1 01 1 12
1938	d2 *12* $0 25	5 65 3 50	3 01 1 00	1 05 0 90
1939	d*6.15* ..	5 19 2 50	4 33 1 00	1 59 1 40
5-year average	$d*4 13* $0 05	$6 04 $3 85	$2 75 $0 85	$1 25 $1 16
Market price, May 31	23	23	25	19
Price times average earnings	*none*	*3 8*	*9 1*	*15 2*
Price times 1939 earnings	*none*	*4 4*	*5 8*	*11 9*
Yield on average dividend	*0 02%*	*16 7%*	*3 4%*	*6 1%*
Yield on 1939 dividend	*none*	*10 9%*	*4 0%*	*7.4%*
PRICE RANGE (calendar years)				
1935–1938	71 –10	87⅞–31¼	22¼– 9	25¼–13½§
1939	40¼–16¼	54½–30½	26⅜–15¼	29¾–18¼
1940 (to May 31)	33¼–18	37⅝–20½	36¾–20¼	31½–19

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* Carrying preferred at 100 (market, 41)

† After deduction of senior obligations.

‡ Plus 4% in stock.

§ 1938 range only

ready been paid during the current fiscal year, which began only one day before the war in Europe. The existence of substantial senior capital did not offer a serious problem to the common stockholders in this instance because of a five-year average coverage of interest and preferred dividends of nearly 4 times and a steady expansion in working capital.

Bayuk Cigars and Victor Chemical. The second pair of companies included in the table serve to emphasize again the importance of the type of industry in which a company is engaged. On the basis of the record in recent years, both Bayuk and Victor gave strong evidence of stability and an underlying trend of growth. Of the two, Bayuk had the more impressive record, and it was clearly the stronger company financially. Its stock was selling for approximately book value, of which three-quarters was net working capital, while Victor's stock was selling for twice a book value that was chiefly in fixed assets. Nevertheless, Victor's earnings were valued by the market nearly twice as highly as those of Bayuk. Interim earnings favored Bayuk even more than the earnings shown in the table. For the twelve months ended March 31, 1940, Bayuk had reported $4.67, so that its stock was available at 5.4 times latest earnings. Victor's earnings for the same period were $1.58, so that its price-earnings ratio was 12 times.

To a considerable extent, this differential arose from the fact that the cigar business was admittedly hazardous and was thoroughly unpopular with investors, whereas the chemical industries were universally considered attractive. Closer examination, however, revealed that Bayuk was the leading manufacturer of low-priced cigars, a product with a rising trend of sales, in contrast with the unfavorable trend of consumption of higher priced brands. Moreover, Bayuk's position was fortified both by possession of popular brands and by highly mechanized and efficient factories. Victor's chemical business, until it had expanded recently with the construction of new facilities, had for long been notable for its stability rather than for the growth typical of most chemical companies. Its principal products, phosphoric acid, phosphorus compounds, oxalic acid, and related items, had found their largest outlet in the stable food and soap industries, but recent expansion had been aimed at promising uses being developed in the chemical industries. As these markets grew, it was probable that competition from several large manufacturers of phosphate products would increase.

Another market factor of some importance was the better yield obtainable on the Victor stock, as a consequence of participating privileges of Bayuk's preferred stock which came into effect should dividends be paid in excess of $1 per share on the common stock. This had led the

COMPARATIVE TABLE OF SECONDARY STOCKS (II)
As of May 31, 1940

	Bigelow-Sanford Carpet Co. Inc.		Jones & Laughlin Steel Corporation		S. S. Kresge Company		North American Aviation Inc.	
Industrial classification	Carpets		Steel		Variety stores		Aircraft mfg.	
CAPITALIZATION (000's of $, 12/31/39)								
Funded debt, etc	..		48,099		2,350		..	
Preferred stock, minority interests	2,640		83,583*		..		..	
Common stock (at market, May 31)	5,600		11,400		109,000		60,500	
(000's of shares)	*(314)*		*(576)*		*(5,490)*		*(3,435)*	
% senior obligations (on basis above)	*32 0*		*92 0*		*2 1*		*none*	
ASSETS (000's of $, 12/31/39)								
Net working capital	13,237		55,847		31,311		7,741	
Net property	9,823		153,653		80,865		1,745	
Investments, etc	9		4,831		330		201	
Current ratio	*4 5*		*4 9*		*3 3*		*1 6*	
N. w. c. per share†	*$33 80*		*none*		*$ 5 30*		*$2 25*	
Indicated book value per share	*$65 00*		*$143 00*		*$20 10*		*$2 85*	
% book value to market (May 31)	*361*		*724*		*101*		*16*	
EARNINGS & DIVIDENDS (calendar years)	(E)	(D)	(E)	(D)	(E)	(D)	(E)	(D)
1935	$0 82	..	$d7 82	..	$1 83	$1 00	$d0 01	..
1936	4 83	$3 00	0 03	..	1 98	1 30	0 00	..
1937	1 29	3 50	2 01	.	1 94	1 20	0 14	$0 12
1938	d5 26	..	d17 33	..	1 63	1 20	0 55	0 40
1939	6.45	1 00	d1.60	..	1 89	1.20	2 06	1 40
5-year average	$1 63	$1 50	$d4 94	..	$1 85	$1 18	$ 0.55	$0 38
Market price, May 31	18		19¾		19⅞		17⅝	
Price times average earnings	*11 0*		*none*		*10 7*		*32 0*	
Price times 1939 earnings	*2 8*		*none*		*10 5*		*8.6*	
Yield on average dividend	*8 3%*		*none*		*5 9%*		*2 2%*	
Yield on 1939 dividend	*5 5%*		*none*		*6.0%*		*7.9%*	
PRICE RANGE (calendar years)								
1935–1938	69¾–14¾		126¼–18		32⅜–15⅛		20 – 2	
1939	32¾–15⅞		48¼–17		26⅜–20		29¼–12⅝	
1940 (to May 31)	34½–14		36 –18¼		26 –19½		26¾–15	

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* Carrying preferred at 100 (market, 50) and including $24,660,000 of dividends in arrears.

† After deduction of senior obligations.

company to employ excess earnings to retire preferred stock. Bayuk also needed to build up working capital in order to handle its rising volume of sales. Neither stock appeared at the time to be affected individually by the war in any major respect, except for the possibility of higher taxes.

Bigelow-Sanford Carpet. Among the issues presented in the second table, the Bigelow-Sanford common stock was interesting for its very low ratio of price to the most recent earnings, only 2.8, and the large discount of the price below the actual net working capital available per share after provision for senior obligations. The company was the largest unit in the rug and carpet industry, and a dividend of $1 per share had already been paid on the stock in 1940. That the stock was available for 18 reflected in part lack of interest in the industry and an inactive market for the stock.

More significant, however, was the spottiness of the earnings record and the fact that the ratio of price to *average* earnings was not particularly low. The market, despite the strong position of the subject company, was reluctant to value on a normal basis unusually large earnings that seemed to reflect mainly an inventory profit that might later be lost. Moreover, the company faced a problem under war conditions in assuring itself adequate supplies of imported carpet wool, and concern was expressed over the outlook for new home construction, a major factor in carpet demand.

Jones & Laughlin Steel. To the uninitiated, it might seem incredible on the basis of our exhibit that Jones & Laughlin common stock with its dismal record should command a higher price than Bigelow-Sanford. It is a truism, however, that speculators are willing to assume large risks if large enough profits are offered, and this was true of Jones & Laughlin, where the pyramid of senior capital was so great that successful operation of the company might richly reward speculators who purchased the common stock at a low price. Remembrance of much higher prices seen in former years, too, may frequently be a significant factor tending to support the price of a stock.

Jones & Laughlin was the fourth largest steel maker, with operations completely integrated. Its book value was large, and the hopefully inclined held to the belief that plant rehabilitation and management changes would gradually restore it from a marginal position to its former profitability. The probable large wartime demand for steel was also given weight. Some such demand had been reflected in recent operations, which were sufficiently favorable that earnings for the twelve months ended March 31, 1940, had amounted to $1.02 per common share. For the single quarter ending December 31, 1939, earnings on the common had actually reached $3.26. Furthermore, it was possible to point out that the pyramid might not in fact be what it appeared to be, for one might well assume that the huge preferred dividend arrears would be compromised in some fashion.

Despite these hopes for the future, which were reasonable in many respects, it was still true that the capital structure was excessively pyramided, and the stock had yet to demonstrate earning power over an average period, had paid no dividends since 1931, and had no prospect of paying any until and unless the liability for preferred arrears were compromised in some way.

S. S. Kresge and North American Aviation. A contrast between stable but colorless earnings and dividends and the romance of future growth in a young industry was afforded by Kresge and North American Aviation. Kresge, which was the second largest chain operating in the variety store field, had established an unusually stable record, earnings during the preceding decade having fluctuated only between $1.51 and $1.98 excepting in 1932, when they were $1.01. Dividends had been paid each year, although they had been restricted somewhat by a policy of retirement of senior obligations and expansion of working capital. The relative stability possessed by the company was obvious in the price range of its common stock. North American, on the other hand, could point to neither earnings nor dividends at all commensurate with its present price until the 1939 fiscal year, when volume expanded greatly under the stimulus of war orders.

Kresge's business was essentially stable, consisting largely of five- to ten-cent merchandise, and operations were spread over 26 states through the medium of 686 stores in the United States at the end of 1939. Another 59 stores were operated in Canada. There appeared to be no reason why stable earnings should not persist, though there likewise did not seem to be any material expansion in prospect. More important might be eventual expansion in the proportion of earnings distributed. Indicated yield for 1940 had already been increased by a $0.15 extra dividend. Relative to most of its competitors, Kresge had been able to obtain a favorable margin of profit, and danger of inventory losses was minimized by the rapid turnover of merchandise which was typical of the business. The only apparent unfavorable factor of importance was the currently quiescent threat of punitive chain store taxation which had been proposed from time to time in Congress but had not yet been entertained seriously by the national legislators, although fairly stringent counterparts had been adopted in some individual states.

North American Aviation, in which General Motors Corporation possessed a 29 per cent interest, had formerly operated various aeronautical enterprises, but since early in 1938 it had been engaged primarily in the manufacture of military aircraft, chiefly training planes but also bombers and combat planes. Though it was an important supplier of the United States Army, a large portion of its business was foreign. The latter fact, plus a particularly modern and efficient plant, had enabled it to earn a large profit margin, amounting to 33.6 per cent on sales in 1939. Presently, a huge backlog of unfilled orders was on its books, and even larger orders seemed assured for the future. Increasing demand from the United States armed forces, however, presaged a very much lower margin of profit, and it was probable that the domestic armament program would be accompanied by sharply higher taxes. Despite the huge backlog of orders, deliveries had been slow, and earnings for the March quarter of 1940 were only $0.15, compared to $0.39 in the same period of 1939. This reduced earnings for the latest twelve-month period to $1.82 per share. Liberal dividends were expected again, but thus far none had been declared in 1940.

The unfavorable aspects of North American, as of most of the rest of the industry, lay in its concentration on military business and the uncertainties of what might happen should the war in Europe cease. Though the aircraft companies were protected by cash deposits should foreign orders be canceled, the problem of transfer to production for civilian needs in such an eventuality might be serious indeed, for, despite the great future expansion in aircraft production generally envisaged, it was a fact that the largest civilian demand yet to appear was insignificant compared to the vast military orders being filled and the rapid expansion in productive capacity being undertaken throughout the industry.

B. SPECIAL CLASSES OF INDUSTRIES

Need for Attention to Two Additional Classes. In the course of our discussion, we have touched on industries of various types without attempting to cover all the numerous classes of enterprise that actually confront the analyst. Such an effort toward completeness would scarcely be practical in limited space. It is necessary, however, to add brief special comment on the analysis of two classes of enterprise which not only present special problems to the analyst but also are of considerable size and importance. These classes are extractive or natural resource industries and financial businesses.

Special Problems of the Extractive Industries. We have already in earlier chapters commented on certain problems peculiar to analysis of the extractive industries (i.e., those industries in which a substantial portion of asset value and perhaps the whole of earning power is derived from the ownership of oil, coal, natural gas, iron ore, copper ore, sulphur, or any of numerous other natural resources). These problems arise principally from need of determining the speed with which resources owned are being exhausted and the quantity and quality of reserves remaining at any given time. They are usually complicated by lack of adequate data or by the inability of anyone concerned to determine with assurance the true quantity of reserves held underground, their richness, or the ultimate cost of extraction.

Thus, analysis of the typical mining enterprise, which possesses only scrap value apart from its mineral resources, must go beyond study of demand for the product and of operating efficiency and look into the fundamental prerequisite to its existence: adequate reserves available for extraction at a cost sufficiently low to return a profit. The latter factor is important, for, though the prices of metal and mineral products frequently fluctuate sharply and new low-cost mines may be discovered elsewhere, the costs of the mine in question are often relatively rigid as a result of its physical characteristics, its location with respect to transportation facilities and markets, the nature of the labor supply, and similar influences. Location must also be considered from the standpoint of taxes likely to be imposed and of the effect of actual or anticipated tariff walls. A mine is decidedly immobile.

Sufficiently reliable expert opinion relative to metal or mineral reserves may usually be obtained from the reports of the company or from leading statistical agencies. Frequently, however, companies will report only the actual ore they have blocked out for mining, perhaps only a fraction of that expected eventually to be recovered. When available, registration statements filed with the Securities and Exchange Commission are helpful. If no trustworthy estimates are to be had, the stock should not be considered. It is desirable, also, that the estimates cover the quality of the unmined reserves as well as their quantity, so that there may be a sound basis for anticipating earning power equal to, or more or less than, that demonstrated in the past. An unseasoned mining stock, without earnings experience, is of course purely a gamble unless the investor has unusual facilities for obtaining expert advice and checking on the promoters, and in any event it could not qualify as a sound investment under the standards we have outlined.

When a rough estimate of reserves is available and the rate of depletion is known, the analyst is in a position to determine an appropriate allowance for amortization of the prospective investment. Some mining companies report their earnings before depletion, while some show earnings after this charge. Though it is helpful to the analyst to know the book charge claimed by the company, or allowed it for income tax purposes, it is essential to remember that the purchaser of a stock is affected by depletion in proportion to the price he has paid for the stock, not its book value. Thus, if a mine has a book value of $5 per share of stock and five years of life remaining, there may properly be charged off $1 of depletion each year. Yet, if the purchaser has paid $10 for his shares, he must expect to amortize $2 of his investment each year. Up to the amount of this annual amortization requirement, dividends received should be considered as a return of capital, not as income.

The calculation of appropriate amortization may be made into a highly complicated process, but the analyst should bear in mind that usually he is dealing solely with estimates subject to a rather high margin of error. The practical method is normally somewhat as follows: (1) determine the reasonable life expectancy of the property; (2) deduct net working capital per share (after senior obligations, if any) from the market price of the stock, but without allowance for mining plant and equipment, for the latter ordinarily is of little value on exhaustion of the mine; (3) divide the adjusted price of the stock by the number of years of life expectancy; (4) treat this sum as the proper "depletion" charge to be deducted annually from reported earnings, in so far as the investment in question is concerned. Whether the charge may be considered amortization of the investment will depend on whether it is distributed to the investor or retained in the business.

Gold Mining. Gold-mining enterprises, despite the disrepute that lingers from a vast number of "wildcat" ventures in the past, are not inherently less sound as a class than are companies mining other products. As with other mining shares, however, attention must be confined to properly selected, proved mines, and allowance must be made for depletion of reserves.

Gold mines suffer in periods of rising prices from rising costs that cannot be offset by increasing the price of their product, yet, on the other hand, they gain when commodity prices are declining because they are able to sell unlimited quantities of their product at a fixed price. Historically, the ownership of gold has been a prime desire of individuals wishing to conserve their capital in terms of purchasing power, and gold shares have in recent years been widely recommended as a means through which individuals might legally hoard gold for this purpose. The shares of some of the major gold mines have for a long period been most satisfactory holdings. On the other hand, it is true that the number of demonstrably sound domestic gold properties is very small.

Oil Production. The problems involved in analysis of the shares of companies engaged solely in petroleum production are similar to those experienced with mining stocks, with the additional complication that the production permitted domestic oil companies is limited, or "prorated," by government or semi-official agencies, while at the same time the companies are forced to develop idle properties in order to prevent drainage of their oil by neighboring wells or in order to satisfy lease requirements.

Strictly producing companies are normally far less stable and thus less suitable for investment purposes than integrated oil concerns such as Phillips Petroleum and Socony-Vacuum, which possess transportation, refining, and marketing facilities as well as production. Estimates of the extent of petroleum reserves are usually less dependable than are estimates of mineral reserves, and this is particularly true of small companies whose operations are concentrated in one or two areas. In general, the smaller situations should be carefully avoided, especially shares in wildcat concerns still in the prospecting stage or "oil royalties" offering participation in single wells or groups of wells. Oil royalties may at times possess attraction for the experienced oil operator, but they are hazardous in the extreme for the average investor, who is often misled by the high initial return obtainable because production from a typical well establishes a peak when it is new, or "flush," and thereafter follows a downward curve.

Though an amortization charge may be calculated by the analyst for oil shares as well as mining shares, in the larger companies it is usually less essential, because such companies are engaged in a continual process of reinvesting money obtained from depletion charges in the development of new reserves elsewhere. Continued discoveries of new oil fields and deeper drilling of old fields make this possible, whereas mining companies are less readily able to obtain additional suitable mining properties.

Variation of accounting practices in the handling of development expense is sometimes troublesome in comparing oil or mining enterprises, particularly the former. As we noted at an earlier point, some oil companies charge all "intangible development expense" to income, though others capitalize it, as did Phillips and Socony. It is desirable to note the practice followed in this respect when making comparisons, but over a period of time the results of the different methods are likely to be similar, for the expenses capitalized must later be amortized.

Special Characteristics of Financial Enterprises. Financial enterprises fall into two principal classes, those engaged in providing credit and those engaged in underwriting insurance risks. Both classes present distinctive problems requiring special analytical procedures. They keep their books differently and report to stockholders differently from other industries, and most of them are subject to fairly rigid regulation and inspection by state or federal authorities.

The basic distinguishing characteristic of financial enterprises, however, is the fact that they deal mainly in dollars, without direct concern over physical units or commodity prices. In theory, this characteristic gives their business a quality of simplicity and the valuation of their assets a definiteness not often possible in other lines of business. In practice, the simplicity and definiteness may be apparent rather than real.

Numerous subdivisions differing in significant respects exist within the financial field, both among credit agencies and among the various branches of insurance underwriting, but our purpose here will be served by attention to the two divisions particularly important to the investor in common stocks because of the large amount of their shares outstanding. These are, on the one hand, commercial banks and trust companies and, on the other, fire insurance companies.

Analysis of Bank Stocks. The primary difficulty encountered in analyzing the common stock of the typical bank or trust company is lack of adequate information. A number of banks in large cities, notably in New York and Philadelphia, have in recent years undertaken the issuance of quite comprehensive annual reports, but these institutions are still the exceptions to the rule. Although state and federal authorities prescribe standard forms for reporting assets and liabilities and require the publication of frequent "statements of condition," many banks supply no earnings data at all, and most of the remainder publish only skeleton earnings figures. Reasonably complete details may be provided stockholders at annual meetings, but they are not often published. It is common, but hardly satisfactory, to calculate a bank's earnings by comparison of the successive statements of condition, noting the net change in surplus and undivided profits and allowing for dividends declared.

The points deserving first emphasis in analysis of a bank's stock are only partially available from its statements. These are the manner in which its resources are employed and the capability and integrity of the management. It is essential to obtain some idea of the employment of funds in order to appraise the nature of the risks assumed by the bank. Much of our discussion of bank investment policy in Chapter 14 is pertinent in this respect. A speculative portfolio is, of course, a danger signal.

Knowledge of the diversification between security investments and commercial and real estate loans is provided by the statement of condition, but beyond this the analyst wishes at least a general breakdown of the security portfolio between different classifications and as to maturities, so that he may judge vulnerability to changing business conditions and to changes in money rates, and a similar general breakdown of the loan portfolio as to types of loans and diversification of borrowers. The latter information, of course, is obtained in part from knowledge of the diversification of trade and industry in the area served by the bank. Needless to say, the resources of the bank itself should be of sufficient size to permit it reasonable diversification.

Management is a particularly essential point to check in connection with the study of a bank's statement, because the real value of the assets shown on the statement will depend primarily on the conservatism with which the management has made its loans and investments and then written down items as their soundness became in doubt. A great difference exists among banking institutions in respect to liberality in setting up reserves for possible losses or for declines in the market value of securities. Recent liberalization of tax regulations may be helpful in encouraging more general establishment of adequate bad debt reserves. One essential requirement of bank management is seasoned judgment, and perhaps the best present test of this quality is examination of the particular management's record during the depression of the 1930's, giving consideration to attendant individual circumstances.

We have not mentioned as a first point for consideration the pyramid represented by the ratio of deposit liabilities of a given bank to its capital funds, for the reason that practically all banks by virtue of their deposit liabilities possess a heavily pyramided capital structure, even though technically their common stock may be the only class of security outstanding. It is necessary to ascertain this ratio and to insist on a relatively more conservative employment of resources and maintenance of greater liquidity if the ratio is high. Reference is suggested to Chapter 14 for a fuller discussion of the implications of this ratio. When the deposits of a bank rise materially above 10 times capital funds (capital, surplus, and undivided profits), banking authorities may attempt to have it increase its capitalization. Conversely, of course, if the ratio is much below average it may be difficult for the bank to report satisfactory earnings.

The demand on the part of regulatory authorities during the 1930's that many banks strengthen their ratio of capital to deposits led to extensive flotation at that time of issues of preferred stock, most of which, because of a lack of private demand, were purchased by the Reconstruction Finance

Corporation. In some instances the practice was then followed of stating the value of such preferred stock on the statement of condition at a figure materially below its actual liquidating priority in order to create an artificial stated value on the common stock. Tendencies of this sort are in fact one good reason for the analyst being wary of the typical bank statement: in such statements it has been considered proper in the past to hide unpleasant facts from stockholders and depositors in order to prevent the arousal of fears which might aggravate the situation through withdrawals of deposits. Since the advent of the Federal Deposit Insurance Corporation, there has been less excuse for such practices.

Until 1937, bank stockholders found the risks involved in the pyramid provided by depositors' funds heightened in almost all cases by double liability on their stock. That is, in the event of insolvency of the bank, the stockholders were liable for an assessment equal to the par value of the stock held. Particularly where the market price paid for the stock was far above par value, this liability appeared to be a minor consideration, but the dangers involved were brought home sharply by the vast numbers of defaults and assessments in the early 1930's. As we noted earlier, however, with the advent of federal deposit insurance all national banks were permitted to terminate double liability, and most of the states have since taken similar action with respect to state banks.

The question of earning power, though sometimes relegated to a secondary position because of the general lack of adequate data on it and the even greater importance of the manner in which it is obtained—the type of earning assets, the management of these assets, and the extent of the deposit pyramid—is still a vital factor to the owners of bank common stocks. Detailed income accounts for the total of all member banks are published by the Federal Reserve System, yet few individual banks make public such figures. The analyst, nevertheless, should insist on certain minimum data, including at least a separation of nonrecurring profits or write-downs and realized profits or losses on sale of securities from other income. Policy in respect to the inclusion or exclusion of such items in earnings has been an extremely important factor in recent years, when profits on sales of bonds have often been large. The more conservative banks have employed such profits to write down the cost of other assets or to build up reserves. Hidden or "interior" reserves are often of large proportions.

Bank earnings, of course, are dependent on numerous factors which it is not our purpose to discuss here, including principally the level of money rates and the availability of loans. Earnings are also basically affected by the size of the reserve balances which legislation and rulings of the regulatory authorities may require to be held idle.

Some attention is usually paid to book value in valuing a bank stock because of the high proportion of liquid assets represented. Book value is obtained by adding together stated capital, surplus, undivided profits, and "free" or unallocated reserves if shown; deducting preferred stock, if any, at its liquidating priority; and dividing the remainder by the number of shares of common stock outstanding. A normal relationship of price to book value for leading bank stocks appears to be one of approximate equality, though in recent years a discount has more frequently prevailed. However, banks are no more likely to liquidate voluntarily than are other corporations.

Despite the difficulties in the way of valuation which we have outlined, the sounder bank stocks have had a reasonably satisfactory record as sources of stable dividends. Yet the average investor is probably well advised to omit them from consideration unless he is particularly well placed to obtain detailed information about operations. The inactive markets and paucity of information on most of the less important issues leave much to be desired.

Analysis of Fire Insurance Companies. Fire insurance companies are not only simpler to analyze successfully than are banks; they are also favored by a more promising general outlook for the future. They are not affected directly by government credit and interest rate controls, they have been subject to only scattered political attacks, and they have demonstrated over a long period their ability to compete with mutual insurance companies. They perform an essential service on a basis that has on the average been profitable, and in addition, as we noted in consideration of the investment policies of fire insurance companies, they possess capital funds and unearned premium reserves which they invest. The older and larger companies often possess capital funds of such size relative to their volume of underwriting that they are for practical purposes investment trusts whose management expenses plus gradual accretions to capital are provided from the proceeds of underwriting activity.

Because of this attractive feature and the long and favorable records of the leading companies, fire insurance stocks have come to possess a generally favorable reputation and to be included in conservative investment portfolios. This reputation has been maintained despite unsatisfactory experience in the post-war inflationary years when rising property values and a series of disasters brought about the largest fire losses in the nation's history. The attraction of fire insurance shares is heightened by the availability of full financial reports and by uniform accounting practices and examination and regulation by state authorities. Like bank stocks, fire insurance stocks are largely unlisted, but a number possess active markets, even though the retail prices quoted investors frequently show a relatively wide spread between bid and ask, so that the dealer may obtain more than a strictly brokerage return on the transaction.

The first step in analysis of a fire insurance stock is descriptive, involving examination of the type of risks underwritten, the nature of affiliated or interrelated companies, the adequacy of capital relative to the volume of business done, the soundness of the investment policies followed, and the character and reputation of the management. Such a background is necessary before appraisal of reported earnings may be undertaken.

Few property insurance companies write one line of insurance exclusively, and the typical fire company, though writing perhaps 75 per cent of its total business in fire policies, will also issue policies covering marine, motor vehicle, earthquake, tornado, riot, explosion, and other risks. Concentration on some minor line with which experience is not so extensive as with fire or concentration of risks within limited geographical areas or on only certain types of buildings is recognized as hazardous. Likewise, particularly large single risks should be reinsured with other companies. Emphasis should be placed on careful selection of risks rather than simply on expansion in volume.

It is equally important to ascertain the nature of investment policies followed, the type of portfolio held, and the general skill exhibited in the past in managing it. As we pointed out in Chapter 15, the kind of investment policy permissible will vary according to the size of capital funds in relation to the insurance risks assumed. A substantial measure of liquidity should be insisted on in any event, and the presence of large mortgage or direct real estate holdings may require some investigation into the basis of valuation.

The question of investments in affiliated companies is often highly important because of the tendency of insurance interests to organize "fleets" of such affiliates, either to carry on similar underwriting activities or to write casualty and indemnity insurance. It is necessary for the analyst to obtain either consolidated data or reports for each affiliated company of any size in order to ascertain the true state of affairs, for many of the subsidiary casualty companies, in particular, have become of great importance. Moreover, casualty insurance, because of extreme fluctuations in loss experience, has not yet achieved a stability comparable to that of the fire insurance business.

The income accounts of fire insurance companies separate items pertaining to underwriting and those pertaining to investment because of the obvious differences between these two main activities. Such separation is useful also in view of the established policy of leading companies of declaring dividends only from investment income. Investment income, however, is ordinarily distributed rather fully.

The following income and surplus exhibits of the Continental Insurance Company are typical presentations. They are unconsolidated, though important subsidiaries were owned jointly with the Fidelity-Phenix Insurance Company. It will be noted that underwriting expenses for accounting purposes are deducted from premiums earned during the period rather than from premiums written. Since such expenses are in reality more closely related to premiums written, it is usual in calculating expense

CONTINENTAL INSURANCE COMPANY

Income and Surplus Exhibits

(thousands of dollars, years ended December 31)

	1947	1946	1945
UNDERWRITING EXHIBIT			
Premiums earned	42,013	32,461	28,920
Deduct.			
Losses incurred	24,864	18,090	16,040
Underwriting expense	18,410	13,322	11,367
Other items	(cr.) 284	79	(cr.) 99
UNDERWRITING GAIN	d 977	970	1,612
INVESTMENT EXHIBIT			
Interest, dividends, and rents earned	6,024	5,350	5,149
Investment expenses	195	185	175
Net investment income	5,829	5,165	4,974
Add·			
Net gain from sales of assets	569	749	895
Increase of market over book values	d *197*	d *10,195*	20,730
INVESTMENT GAIN	6,201	d *4,281*	26,599
SURPLUS EXHIBIT			
Underwriting gain (above)	d 977	970	1,612
Investment gain (above)	6,201	d *4,281*	26,599
Federal income taxes	364	963	1,429
TOTAL GAIN	4,860	d *4,274*	26,782
Deduct:			
Dividends declared	4,000	4,000	4,000
Transferred to capital	......	......	15,000
Other items	(cr.) 324	369	(cr.) 1,000
INCREASE IN SURPLUS	1,184	d *8,643*	8,782

ratios to employ the latter figure. Losses incurred, as distinguished from the expenses of obtaining the business originally, are of course deducted from premiums earned. The expenses involved in adjustment of losses are ordinarily included with losses rather than with underwriting expense for purposes of analysis.

The "total gain" shown on the Continental statements patently was of little value in indicating actual earnings for the years in question, since it reflected in large part changes in the market value of the investment portfolio and also profits and losses on the sale of securities. The dividends declared by the company, it was obvious, were related directly to the "net investment income" reported. For a realistic presentation of earning power, it is customary to employ the latter figure, plus "underwriting gain" and plus an arbitrary adjustment amounting to 40 per cent of the net increase or decrease in unearned premium reserves in order to reflect changes in the value of business written which has not yet gone through the income account.

In calculating the stockholders' equity in the business, or net asset value, it is likewise customary to include 40 per cent of unearned premium reserves. This asset value is given considerable weight by investors because it is primarily a liquidating value based on market prices of securities owned.

The tables on page 581 present essential data on Continental's operations for recent years in more serviceable form. The ratios in the first table are particularly useful for purpose of comparison with other companies, though care should be taken to emphasize the last column rather than the other two. Comparisons of either expense or loss ratios alone are treacherous, since, for example, the reason for a high expense ratio may not have been inefficiency but rather the cost of particularly careful scrutiny of risks which has resulted in a favorable loss experience.

Among the points to be noted by the analyst in these brief exhibits, the most impressive was the good ratio of underwriting gain. Fire loss experience had been generally unfavorable during the period covered, and the margin of profit obtained by Continental was materially better than average. This favorable margin appeared to be attributable not to a low loss ratio, for the loss ratio shown was about the average for leading companies, but to consistently low underwriting expenses.

Other points to be noted include the steady growth in investment income and the discount from asset value which had prevailed in the market price of the stock. Not fully brought out in the exhibit was the tendency of the market price of Continental stock to reflect changes in net asset value as they occurred. The relatively wide variations in price shown were

CONTINENTAL INSURANCE COMPANY

I. Comparative Underwriting Statistics

(years ended December 31)

Year	Net Premiums Written (000's of $)	Premiums Earned (000's of $)	Per Cent Underwriting Expense to Premiums Written	Per Cent Losses Incurred to Premiums Earned	Per Cent Underwritings Gain to Premiums Earned
1943	27,075	26,801	37.6	49.8	13.4
1944	29,468	26,915	36.7	57.4	2.4
1945	31,836	28,920	35.7	55.5	5.6
1946	37,220	32,461	35.8	55.7	3.0
1947	50,984	42,013	36 1	59.2	d 2.3
5-year average..	35,317	31,422	36.4	55.5	4.4

II. Earnings, Dividend, and Price Record

(per share of stock, years ended December 31)

Year	Parent Company Earnings				Consolidated Total Income	Dividends Declared	Consolidated Net Asset Value (Dec. 31)	Price Range
	Underwriting gain	40% of change in unearned premiums	Net investment income	Total income (after taxes)				
1943	$1.79	$0.05	$2.32	$3.26	$3.84	$2.00	$50.52	49½–40¾
1944	0.33	0.51	2.41	2.81	3.30	2.00	57.48	49½–41⅞
1945	0.81	0.58	2.49	3.16	3.83	2.00	68.38	59¼–46
1946	0.49	0.95	2.58	3.54	4.61	2.00	67.29	63 –46⅛
1947	d *0.49*	1.79	2.91	4.03	5.54	2.00	68.38	55½–44
5-year average	$0.59	$0.78	$2.54	$3.36	$4.22	$2.00		

due primarily to the fact that the company's investment portfolio was heavily weighted with common stocks. In this instance, an investment policy stressing common stocks did not appear to involve undue hazards, because of the possession of capital funds extremely large in relation to the volume of insurance risks underwritten.

SUPPLEMENTARY READINGS

See page 519.

PART 5 Investment Management

CHAPTER 32 Investment Advice and Management

The Nature of the Problem. A discussion of professional investment management and of sources of advice open to the individual investor will serve to round out our consideration of investment and enable us to bring together in review principles which we have undertaken to develop in the chapters that have preceded. At the cost of a certain amount of repetition, it is desirable to obtain perspective on the problem of the typical investor, who finds that he must lean on others in making investment decisions.

Of course, to a large majority of people actively at work earning a living the management of investments presents no immediate problem. By the time they have paid their current bills, taken care of premiums on their insurance policies, and perhaps met the instalments due on a home, an automobile, or other "easy-payment" purchase, there is ordinarily nothing left to invest. The unusually thrifty among them will save something each month, but the sum saved should not require management. Instead, it should constitute an emergency cash fund and should be entrusted to a bank, building and loan association, or postal savings account or be invested in a United States Savings Bond.

All too many of this group, nevertheless, will be misled by hope of profit to divert money which should be spent for additional insurance, or be placed in a savings account, to the purchase of low-grade stock, a risk that they are not in a position to assume.

Persons facing a problem in the selection and care of their investments are either (1) those still actively engaged in business or a profession and whose incomes exceed current requirements, or (2) those who look to the income from their investments for their sole or principal means of support. Such persons usually experience little difficulty in determining what course to pursue when problems pertaining to their health or their legal rights are concerned, but questions relating to investment are likely to find them completely at a loss as to where to turn for advice or assistance.

The principal reason for this difference in attitude is that the management of investments has only recently assumed anything like a professional status. Every Tom, Dick, and Harry has felt qualified not only to select securities but also to advise others with respect to the matter. Many as are the charlatans and quacks in the medical and legal professions, their number is insignificant compared with those who have "real investment opportunities" to offer to the unwary or at least profess to know just what other persons should do with their money. Then, too, investment management, much more than the older professions, is faced with incalculable or unpredictable factors which may play havoc with results and lead the investor to the conclusion that no one knows anything about investments. Employees of banks, bond houses, and stock exchange firms, without sufficient information and training, have been too ready to make investment recommendations which have later resulted in serious losses and developed in those advised a spirit of cynicism and distrust toward any sort of investment advice. It may in fairness be added in this respect, also, that it is far easier for the unfortunate victim to recognize an investment mistake afterwards than is true in law or medicine.

Professional investment management, despite its relative youth, has now developed to a point where persons with estates of $100,000 or more can secure competent service at a price that does not absorb an excessive part of the average annual income. The smaller estate is confronted with a more difficult problem. The better investment counsel organizations will not undertake to manage small accounts because the amount of time and effort involved in thorough individual attention to them would be virtually as great as in the case of large funds, with the result that a fair charge might absorb all, or the major part, of the income.

As a consequence, the person with a few thousand dollars may seek the less personal service obtained by owning the shares of management-type investment trusts, or commingled trust funds such as we described in our discussion of fiduciary institutions.[1] He may also rely on the "free" service of salesmen representing security houses, who take their compensation indirectly in the form of commissions on transactions effected through them. Often he decides to manage his own fund, obtaining what assistance he can from various sources, including banks, bond and brokerage houses, and financial services and publications.

Before we undertake to appraise the services of professional management or examine the several sources of investment advice, it will be helpful to review briefly some of the fundamentals of successful investment.

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[1] A number of investment counsel organizations operate so-called "funds" similar in nature to investment trusts.

We shall find them a useful yardstick in our evaluation of the alternatives open to the investor.

Criteria of Successful Investment. First of all, the objectives that distinguish investment from speculation must be kept clearly in view. The primary objective of investment is the procurement of an income, preferably a stable income, of as great size as is consistent with the protection of the principal. Desirable, but of considerably less consequence than safety of principal and reasonable income, and not appropriate to the situation of every investor, is the objective of securing profit in the shape of a greater-than-average income or appreciation in the value of the fund over a period of years. Normally, protection of the investor's capital from impairment is the most essential single consideration. It is better to supplement temporary shrinkage in income by using part of one's capital than it is to hazard the fund unduly by trying to maintain the accustomed rate of return through buying securities of questionable quality. One of the tragedies of the period of low interest rates of the 1930's was the desperate effort on the part of investors to maintain the old predepression return of 4½ to 6 per cent when the current yield on safe commitments had fallen to around 3 per cent.

Second, eternal vigilance is necessary to successful investment. Seldom do investors place enough stress on the fact that investment is not solely a question of buying, but also of constant review and of weeding out through sale those issues no longer suitable. Even portfolios containing nothing but the highest grade of civil and corporate obligations are no exception. In the course of time, some city or some business enterprise is bound to suffer financial reverses, with a resultant deterioration in the investment merit of its securities. These must be weeded out when the weakening is detected, or, in the event that such discovery is not made until the fact is fully reflected in prices, as soon as it becomes evident that a reasonably speedy return to a sounder status is unlikely. Furthermore, a current subnormal rate of interest may begin an upward trend and subject all the longer term bonds in the portfolio to a loss in market value. Inflation may set in and lower the purchasing power of both interest and principal. The owner of investment capital cannot afford to sit idly by and do nothing to meet these developments.

Third, managing an investment account properly involves not only familiarity with economic and political developments throughout the world but also a knowledge of the problems and prospects of the leading industries and of the principal companies within these industries. Facility must be acquired in the interpretation of series of balance sheets and earnings statements. Ability is needed to appraise the soundness of capital structures, financial positions, earning power, dividend policies, and other evidences of corporate strength and managerial skill. The need for this capacity for discriminating between the more and the less attractive investment risks was strikingly illustrated in the major swing that culminated in the crash of 1929. In neither the upward nor the downward movement did all securities move in unison or even in the same direction.

Professional investment management has been subjected to severe criticism because it has at times failed to foresee even major swings in the market. Our point of view throughout this discussion has been that, although investment is a science, it is not, and never can be, an exact science. Especially since the outbreak of World War I, the unpredictability of events has increased markedly. Nevertheless, although even the best qualified investment management is not perfect, its record at financial forecasting is much more creditable than that of the untrained amateur.

Fourth, even after it has been decided that a bond is sound or that a common stock represents an attractively situated company in a promising industry, one should not place such securities in his portfolio unless they can be acquired at satisfactory prices. Even then, the purchase should not be made unless it fits into the pattern currently desirable for the whole fund, in view of whatever phase of the business cycle appears to be at hand or just ahead. Conversely, when it becomes evident that certain companies are on the decline or certain securities are not appropriate vehicles at the current phase of the cycle, good management will not lack the courage to sell its holdings even at some loss rather than run the risk of incurring a much greater loss later on. One of the most persistent failings among investors is their unwillingness to make the best recovery they can from a purchase that has turned out badly. They persist in the conviction that if they will but wait even for several years the security in question will have regained its former status and the loss will have been avoided. It rarely turns out that way.

Fifth, sound management involves as broad diversification in the content of one's investment portfolio as is consistent with ability to give to each item the attention it may require. This is especially true in the case of equities, where the greater inherent risk makes concentration in one company or one industry highly undesirable. A person associated with a given enterprise is inclined to have a disproportionate share of his means invested in its securities, even where there is no question of voting control involved. After his death, his widow or other heirs will often spurn any suggestion that a part of these holdings be sold in the interest of diversification. A change in the testator's investments is often regarded as sacrilege. No matter how old or well-established a business may be, there is no assurance that it will not become the victim of internal or external forces which will either destroy it completely or cripple its earning power.

Sixth, sound management involves a shifting of the proportions of the different elements in an investment fund in accordance with changes in the outlook for business and security prices. No one has yet devised a warning signal that will indicate unerringly the time for reducing the proportion of equities to fixed-value securities, or vice versa, but that does not mean that the prevailing stage of the business cycle cannot be identified and the forces that are to determine the nature of coming changes appraised with a fair degree of accuracy.

Lastly, one's investment program should be long-range and adapted to his peculiar requirements. The portfolio of a young widow with three children to rear and educate must, of necessity, be different from that of an elderly bachelor without dependents. Even so, the investment manager will usually have to make some minor concessions to the peculiar tastes and prejudices of his clients just as an architect will have to incorporate certain special features in a house, although to do so may run counter to his own judgment.

Managing One's Own Funds. For the average investor, lacking as he is in time, experience, and facilities, fulfilling the specifications we have laid down in the preceding section and throughout this volume is a well-nigh impossible task. If he relies instead on "hunches," however, his money will disappear as if by magic. If he follows tips and rumors, the end will be equally swift. There are certain sources of information and advice that may be of considerable help to a person in his situation. These we shall consider in some detail.

First, he may read economic and financial journals and similar sources of information relative to business conditions in general and investment problems in particular. Some helpful material may also be found in the better metropolitan dailies, although both financial journals and daily newspapers in general adopt an undesirably short-term viewpoint. By visiting public or private libraries where such services as Moody's and Standard & Poor's are available, he may procure data about the better-known securities. However, obtaining satisfactory results from reliance on such materials presupposes a better-than-average background and a considerable amount of leisure. For those who desire a more personalized type of assistance, several of the services supplement their general published information with an arrangement whereby an individual can receive advice respecting his investment problems. Necessarily, the cost of adequate service of this type places it beyond the reach of the person with a small income.

Naturally, the advice of competent men directed to the personal problem of the individual is of much more value than the general suggestions published at frequent intervals advising investors or, more often, speculators to buy, sell, or hold certain stocks or bonds. This may be the very thing one individual should do, but it may also be the very thing another should not do. With respect to their general recommendations, also, investment and statistical organizations have been criticized for trying to cover too much ground. The inference is that they should stick to the job of compiling data and leave the task of applying it to organizations that specialize in the management of investments. In the opinion of the authors, however, the fact that an organization is engaged in rendering statistical service does not necessarily preclude its operating a special investment department of high quality. It has no securities to sell or commissions to receive from placing orders for its clients.

Several of the statistical organizations, as we have seen, publish quality ratings which express the degree of risk that in their judgment attaches to the ownership of each of the securities rated. These ratings do not purport to save others from making analyses; they merely serve as a check on the analyst's work. They are made with the greatest possible care consistent with the enormity of the task, and yet occasional serious errors are inescapable. After all, such ratings are merely the opinions of persons with necessarily imperfect data, and they are to be tested by unpredictable future events. The several rating agencies do not employ indentical systems, although the explanatory statements enable one to compare them. The safe policy is to accept the most conservative rating as the most reliable, but, as we have said, only as a check.

Even where an investor entrusts the management of his funds to some other person or to an organization, it behooves him to be intelligent and well informed regarding the whole process of investment. Practitioners in any profession can accomplish much more with understanding clients than they can with those whose failure to comprehend what is involved in their respective cases serves as an obstacle to the achievement of the best results. Contact with sources of investment information and with discussions of investment fundamentals is to be commended, therefore, to anyone who has funds to invest, although this should not be carried to the point where personal opinion based on limited observation leads the investor to disregard competent professional advice for which he is paying.

Second, though complete reliance on some bank officer or member of the staff of a bond or brokerage house for gratuitous guidance is usually not desirable, it is well for the person who is undertaking to manage his own funds to check with such of these men as he has found by experience to be capable of giving him disinterested and able advice regarding some move that he is contemplating with respect to his investments.

The commercial or savings bank has no securities to sell except as its investment department may be participating in the distribution of a civil loan. The only other element of self-interest which might creep in is its reluctance to see the investor decrease his deposit balance by the amount of the investment he proposes to make. However, bank officers as a class are especially wary of impostors and have often been able to save customers from falling into the clutches of unscrupulous security salesmen.

Particularly in the larger banks and trust companies, well-equipped investment departments are maintained and manned by persons who are well informed respecting the types of securities which banks buy for their own portfolios or for the estates that are being managed by their trust departments.

The chief criticisms which have been leveled at banks as advisers are that so often an officer or subordinate employee with insufficient training for such a task will utter a snap judgment regarding an investment problem presented by a client rather than "lose face" by admitting that he is not qualified to give the advice sought, and, on the other hand, that the more experienced banker is often reluctant to give definite advice, wishing to avoid responsibility for the action taken. Normally, then, talking things over occasionally with an officer of a bank does not constitute adequate investment management but may prove to be a helpful way in which to check one's own conclusions, provided that the officer in question is qualified to give dependable advice respecting the problems presented to him.

The bond house is a frequent source of investment advice. Until recently, this was quite generally given free of charge. Of late, some firms have set up investment management departments which charge for their services. However, the other members of the staffs of investment houses still give a good deal of time to answering client's queries regarding this or that security. The personnel of a good investment banking house necessarily has a large fund of information itself and has access to a well-equipped statistical department. On that score, few aspersions can be cast at the advice they give to investors. What lays their recommendations, as a class, open to suspicion is the fact that the house has securities for sale and that advice is likely to be colored, consciously or otherwise, for that reason. They tend, normally, to think in terms of individual offerings they have for sale, rather than of the broader problems of the individual investor. Many houses with a limited clientele, moreover, feel that they cannot exist without the commissions obtained from constant turnover within their customers' accounts.

Most of the special management departments thus far created by bond firms have leaned over backward to meet these objections by avoiding the placing in a client's portfolio of securities the firm is offering for sale. Strict adherence to this policy, of course, may sometimes deprive a client of exactly the type of security he should have, unless he can procure it from some other investment house. There is no fundamental reason why an investment management department, even though it is a part of an organization that deals in securities, cannot function in a capable and disinterested fashion. As for the occasional advice obtained from salesmen or "inside men" in an investment house, we repeat what we said regarding a bank, that its merit as a means of checking one's own findings varies with the character and competence of the man who gives the advice.

The staffs of stock brokerage concerns are also likely to have a commendable fund of knowledge about securities and access to a good statistical department. As purveyors of investment advice, they possess the advantage of having no securities to sell. They merely execute orders on an exchange. Their points of weakness as investment advisers are: (1) that the more purchases and sales they induce a client to make, the more commissions the house will earn and the better salaries they will be paid, and (2) that their main interest too often is in the short-term swings of the market (i.e., their point of view is that of the speculator rather than that of the investor). Some stock exchange houses have established special departments which provide free investment counsel to clients. They are willing to assume this additional expense in order to relieve busy customers' men of the task of undertaking to help persons with their investment problems. The regular employees of a brokerage house, normally, have neither the time nor the viewpoint required for managing someone's investment portfolio. Barring the constant temptation to create business for the firm by suggesting an undue amount of switching of securities, there is no important reason why investment management could not be carried on in a special department of a brokerage business. The charging of a fee which fully covered the cost of the service would relieve the client of any feeling of obligation to patronize the brokerage department whenever switching of stocks or bonds was recommended. Naturally, however, neither disinterested nor sound advice can be given unless the investment department is thoroughly insulated against the whole atmosphere of order taking, quick profits, and the tips, rumors, and gossip that characterize a typical brokerage office board room.

If a person is one of those exceptional investors who can manage his own capital with such reliable assistance as he can obtain from financial publications, statistical services, bankers, and brokers, he can avoid the cost involved in dependence on professional management, except that such subscription fees as he pays for periodicals and other publications will have to be deducted from the income and profits he obtains in order to put the results on a comparable basis. Typical investors, however, will not secure satisfactory results by "going it alone," even with such aids as we have enumerated. They should therefore avail themselves of the management services afforded by carefully selected management-type investment trusts, trust companies, or professional investment counsel. Since we have discussed the services of the trust company in an earlier chapter, we shall not deal further with them here.

Investment Companies as Managers of Investments. As we have indicated earlier, the investment company offers a management service that fits the pocketbook of the smaller investor. Basically, the principles on which management-type investment companies are built are thoroughly sound. For generations, as we observed in Chapter 16, the British companies have provided investors in their securities with a degree of diversification of risk and quality of management which the average person could not hope to achieve. In America, the development of the investment company has been recent and, unfortunately, it attained its most rapid growth during one of the most unhealthy periods of American finance—the late 1920's. As has happened at some stage in all forms of business enterprise, serious abuses crept in, and heavy losses were experienced. The investment companies which have survived the crash of 1929, or have been formed during the more sober days which followed that event, have for the most part been built on more solid lines. The present trend is toward the mutual company with a simple capital structure, and with management provided by a staff of its own or by an affiliated investment counsel firm. Certain sound closed-end investment companies are available without payment of the premium over asset value required to cover selling commissions on mutual funds, and the former companies are able to employ more flexible investment policies, but the mutual type is more popular because it stands ready to return to the investor at any time the current monetary equivalent of his share in the contents of its portfolio, less in some cases a moderate service charge.

The chief weaknesses of the mutual investment company as the "poor man's investment counsel" are: (1) its continuing need for selling at least as many shares as it is called on to redeem, if it is to survive, with the unavoidable stress on merchandising to which this leads; (2) its tendency to buy only "blue-chip" securities instead of making a search for bargains among less popular but equally sound companies; (3) the relatively high sales expense and cost of management which must be borne by investors; (4) direction of the management of the portfolio more toward securing appreciation than toward protecting the principal and obtaining a moderate but dependable income.[2] Excessive concentration on appreciation, with its attendant risks, is, of course, particularly undesirable from the standpoint of the small investor. Some companies also fail to afford adequate diversification, substituting an allegedly intimate acquaintance with the affairs of a few corporations as an offset to the increased risk. The recently enacted federal regulatory legislation should prevent a repetition of various abuses, but, naturally, it does not guarantee that all investment company shares will prove to have been attractive purchases or that some investors in them will not lose money.

There appear in financial journals, from time to time, impartial comparisons of the performance of the leading investment companies which it would behoove investors to study, although there is a regrettable tendency in such comparisons to confuse income earned with temporary fluctuations in portfolio values. Before purchasing the shares of any of these companies, one should investigate the reputation of the management and make a careful comparative study of policies and the results obtained over a period of years, taking into account the relative size of the risks which have been assumed. Attention should also be given the costs of purchase and managerial expenses. Proper diversification and skilled management are highly important desiderata which the ordinary owner-managed fund usually lacks. A well-managed company should be able to provide these requisites and thereby afford to the investor, in the long run, greater security, a better yield, and a reasonable opportunity for appreciation in the value of his capital.

Investment Counsel. From previous references to investment counsel organizations, one might get the impression that no investment counsel will take an account that does not run into at least six figures. Though it is true that the large organizations will not accept small estates, some of them do manage affiliated investment trusts for the benefit of persons who cannot afford the "tailor-made" type of service accorded to more affluent clients. It is also true that there are several thousand other concerns, mostly consisting of one or two persons, that will manage any fund offered to them almost regardless of its size. Persons who became disheartened over trying to manage their own funds after the disastrous losses following the crisis of 1929 turned eagerly to counselors for guidance. Fortunately for the counselors, real and bogus, after the trough of the great depression of the early 1930's, the stock market rose fairly steadily until the sharp break came in 1937. What was, many times, chiefly good luck could easily be attributed to the possession of great ability in the field of investment management. Some counselors are well-qualified persons, whereas others are unemployed bond salesmen, brokers, inexperienced college graduates, or financial writers who are in search of some means of support. No matter how well trained an individual may be, he will find it difficult to furnish individual management to small amounts of capital without having to charge a prohibitive fee.

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[2] The "funds" operated by investment counsel organizations usually contain a backlog of high-grade bonds as well as the more "variable income" securities customarily found in the holdings of investment companies.

Before a person undertakes to qualify as an investment counsel, it should be demonstrated to the public authorities (1) that he is a person of unassailable character; (2) that he has had the equivalent of a college education and is familiar with economics, corporate finance, accounting, and the operations of the securities markets; (3) that he has had several years of practical experience under recognized investment counselors; (4) that he has the financial means to provide adequate personnel and equipment for the rendition of acceptable service to clients; (5) that he will confine his activities solely to the task of counseling (i.e., he will not undertake to sell securities or financial services or maintain the custody of clients' securities, and will leave the selection of a broker and execution of any orders to the client).

In addition to these minima, a person who contemplates putting management of his investments in the hands of professional counsel should insist on further requirements. Among the most important are:

First, that the members of the organization recognize clearly that they are not "speculative counsel" but "investment counsel." If their interest is in helping clients reap quick gains from turns in the market, they should confine their services to traders rather than distort the point of view needed for sound investment advice.

Second, that the fee charged should be based on the amount of capital entrusted to them to manage rather than on the amount of income and appreciation realized in a given year. The latter basis of remuneration fosters undue risk taking. The prevailing average charge is ½ of 1 per cent of the value of the estate, as of the beginning of the year. Although ½ of 1 per cent seems like a small charge, it represents one-sixth of a 3 per cent annual return on the investment list and ⅛ of a 4 per cent return.

Third, that a thorough study be made of the peculiar needs of the beneficiaries of the fund and that the program be specifically adapted to them.

Fourth, that a frequent study be made of the content of the portfolio and that changes be made whenever the fullest realization of the objectives makes them desirable.

One factor operating to prevent the lowering of fees for investment counsel is the expense of obtaining and keeping clients' accounts. The commission paid to the salesman "landing" the account is usually a substantial portion of the first year's fee. Moreover, like the mutual investment companies, investment counselors are faced with the problem of keeping withdrawals of capital to a minimum, despite the efforts of rival salesmen. Many counselors feel themselves forced, occasionally, to advise transactions in the accounts of clients for the sole purpose of creating activity and reassuring the client that the fees he is paying are being earned.

Since the relations of counsel and client are confidential it is not possible to study the results obtained in individual estates, but the figures for the "management funds" operated by counsel organizations are available and are useful as measures of performance.

Both the states and the federal government have come to recognize the mischief that can be wrought by a dishonest or incompetent person in the guise of an investment counsel. Several of the states now require that a license be obtained from the official or board in charge of the regulation of the securities business, but such laws protect against fraud rather than assure competence.

With the passage of the Investment Advisers Act of 1940, the United States Government subjected investment advisers to federal control. However, the act excludes bankers, brokers, and others for whom the giving of investment advice is only incident to their principal occupation. It also excludes those who advise solely with reference to investment in obligations of the United States.

All professional advisers are required to register with the Securities and Exchange Commission except: (1) those who do not advise with reference to securities traded on any national exchange; (2) those whose clients are solely insurance or investment companies; (3) those who have fewer than 15 clients and do not offer their services to the general public.

Registration involves a recital of one's education and past business connections, proof of freedom from conviction of crime, explanation of one's policies in handling clients' affairs, fees charged, and the like. The information in the statement must be kept up to date by annual supplemental statements.

Among the important "thou shalt not's" included in the Act of 1940 are: (1) that the fee shall not be based on capital gains experienced; (2) that no purchase or sale be made for a client without a full written explanation of the transaction; (3) that no deceptive or fraudulent acts be committed or untrue statements made in the information required by the Commission; (4) that federal registration shall never be used as a basis for representing that the firm is operating under the sponsorship of the government.

In addition to this regulation by public authority, a limited number of representative firms have formed the Investment Counsel Association of America. They have set up standards of conduct which are more strict than those imposed by law. For example, they require that counsel shall devote its entire time to this one task, that it shall not be engaged in the bond or brokerage business or the publication of economic or statistical data. There must be at least two partners, and they must be financially responsible and adequately equipped.

Like all the other managers of investment funds, the investment counsel organizations may fail to anticipate economic change or the future of individual commitments correctly, and, as a consequence, the value of the funds in their care may decline and the income be reduced. To expect infallibility in any line, especially in one containing as many pitfalls and uncertainties as exist in the field of investment, is preposterous. If persons who make a business of dealing in investments are right more often than they are wrong, and if they produce a reasonable average return without unduly hazarding principal, that is as much as their clients have a right to expect.

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PROJECTS

1. Prepare a simple budget for a couple in their late twenties, having one child and living in a small city. Allocate their income of $400 per month among such items as house payments, house and grounds operation, food, clothing, insurance, income taxes, health, education and recreation, donations and savings. What part of these outlays can properly be regarded as investment?

2. Assume that the couple in the preceding project inherit $25,000 from a relative and decide to invest it. What should be their objectives? Outline an investment policy and program for them.

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